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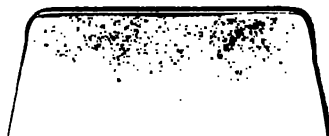
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SPECIAL REPORT
ON
IMMIGRATION:

ACCOMPANYING
INFORMATION FOR IMMIGRANTS

RELATIVE TO
THE PRICES AND RENTALS OF LAND, THE STAPLE PRODUCTS,
FACILITIES OF ACCESS TO MARKET, COST OF FARM STOCK,
KIND OF LABOR IN DEMAND IN THE WESTERN
AND SOUTHERN STATES, ETC., ETC.

ALSO,
TABLES

SHOWING THE AVERAGE WEEKLY WAGES PAID IN THE SEVERAL STATES
AND SECTIONS FOR FACTORY, MECHANICAL, AND FARM LABOR,
THE COST OF PROVISIONS, GROCERIES, DRY GOODS,
AND HOUSE RENT IN THE VARIOUS MANU-
FACTURING DISTRICTS OF THE
COUNTRY, IN THE
YEAR 1869-'70.

BY
EDWARD YOUNG, Ph. D.,
CHIEF OF THE BUREAU OF STATISTICS.

TO THE ABOVE IS ANNEXED A PAMPHLET WITH MAP IN RELATION TO
THE CLIMATE, SOIL, RESOURCES, AND COMMERCIAL ADVANTAGES
OF THE NORTHWESTERN PORTION OF THE UNITED STATES
TRAVERSED BY THE NORTHERN PACIFIC RAILROAD.

PHILADELPHIA
M. BAUGHMAN & SONS, PRINTERS
1871.



②

SPECIAL REPORT

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1875, April 27.

Gift of
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of Trieste.

(Ob. U. 1843.)

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REPORT ON IMMIGRATION.

BUREAU OF STATISTICS, TREASURY DEPARTMENT,
Washington, March 7, 1871.

SIR: In a country like ours, possessing rich and undeveloped resources, the advent of intelligent labor has, in general, been cordially welcomed. The value of this addition to our material wealth has never been more appreciated than during the last two decades.

The unexampled development of the Northwestern and Pacific States is largely owing to the influx of skilled and common labor during that period. Within the last few years, owing to the completion of the railroad to the Pacific and other great works of internal improvement in the western portion of our domain, and to the abolition of the system of servile labor in the Southern States, extraordinary inducements for immigration have been presented, and the subject, always interesting, now possesses a peculiar claim on public attention. These considerations have induced me to obtain and compile information which is deemed of sufficient importance to submit to you for presentation to Congress in a special report on immigration.

The subject will be presented from the two following points of view: first, the value to the country of the millions of immigrants who have arrived during the past half century; and secondly, the advantages which various sections of this country offer to those intending to emigrate.

I. STATISTICS AND VALUE OF IMMIGRATION.

The collection and compilation of the statistics of immigration have for several years past formed a part of the regular work of this Bureau. These data embrace the number, age, sex, nationality, and occupation, as well as the ports of arrival, of all the passengers who land on our shores or come within our borders, distinguishing aliens from citizens of the United States returning from abroad, and those intending to settle permanently, from those whom business or pleasure has induced to make temporary visits to this country. By the publication of these facts the general character and condition of the people who are thus year by year incorporated into our population may be known.

Prior to the year 1820 no official records were kept of the influx of foreign population to this country. The population of the Colonies at the commencement of the revolutionary war has generally been estimated at 3,000,000, and it is probable that as many as one-third of these were born on the other side of the Atlantic, while the parents of a large portion of the remainder were among the early immigrants. During the war the influx was in great part suspended, but at its termination the tide of immigration resumed its flow with increased activity. The number of alien passengers who arrived between the years 1790 and 1820 has been estimated by statisticians at 225,000, to which may be added 25,000 arriving between the years 1776 and 1790, making an aggregate of 250,000 immigrants, who had transferred their allegiance to the United States before the enactment of the passenger act of March 2, 1819. Since that period the stream of immigration, measured with approximate accuracy, has been steadily flowing toward this country. Its increase—from 1820, when 8,385 alien passengers landed on our shores, of which 6,024 were from the British

Isles, until 1854, when it reached the maximum of 427,833—though irregular, was on the whole rapid. Immediately previous to and during the late war the decline was marked, descending to 123,126 in 1858, and 121,282 in 1859, and to less than 92,000 in the years 1861 and 1862. After the termination of the war, however, immigration resumed its former magnitude, reaching from 249,061 in 1865 to 395,922 in 1869. In the year 1870, just closed, the arrivals during the last two quarters of the year have been diminished by the war in Europe, the whole immigration being but 378,796. To this should be added about 10,000, the estimated number who came across the Canadian frontier, either directly from the British provinces, or through them from Europe.

During the entire period from 1820 to 1870, the increase of each year over the one immediately preceding, if uniform, would average about 13 per cent. The aggregate number of immigrants who arrived between October, 1, 1819, and December 31, 1870, is 7,553,865; and if the 250,000 estimated as arriving previous to the first-named date be included, the total number of aliens who have been permanently added to our population by direct immigration since the formation of the Government will reach 7,803,865.

The difficulty of determining the pecuniary or material value of the foreign population who come yearly to this country is not inconsiderable, as no data are accessible by which it can be accurately ascertained. Indeed, the very attempt to do so may appear derogatory to the dignity of human nature. To regard a man merely as an automatic machine, computing his productive power, minus his running expenses, places a low estimate on a being made in the image of his Maker, and seems an insult alike to the Creator and the created. The muscular power of the laborer may be measured, but where is the meter that can mark the activity of his brain or indicate his moral force?

In making an intelligent estimate of the addition to the material wealth of the country by immigration, several distinct conditions should be regarded. The character of the immigrants as industrious and law-abiding citizens, their nationalities, education, and previous condition, as well as their occupations and ages, are elements to be considered when determining their value.

As regards nationality, more than one-half of those who have thus far arrived in the United States are British, and come from the United Kingdom, or from the British possessions of North America. These speak our language, and a large part are acquainted with our laws and institutions, and are soon assimilated with and absorbed into our body-politic.

The German element comes next, and embraces nearly two-thirds of the remainder, being at once an industrious and an intelligent people, a large proportion settling in rural districts and developing the agricultural resources of the West and South, while the remainder, consisting largely of artisans and skilled workmen, find profitable employment in the cities and manufacturing towns.

The influx of Scandinavians, who have already made extensive settlements in the Northwestern States, constitutes a distinctive feature of the movement, and though but a few years since it received its first impetus, is already large and rapidly increasing. Industrious, economical, and temperate, their advent should be especially welcomed.

Asiatic immigration, whatever views may be entertained of its influence upon our industries and customs, has not yet reached such proportions as to excite alarm in the most apprehensive, and falls far short of what has been represented, never having reached in any single year the number of 15,000, forming only about 4 per cent. of our total immi-

gration. So small a number can easily be absorbed into our population of 40,000,000, and no injury result, if the movement be confined to *voluntary* immigration. A peculiarity of the Chinese immigration is the small number of females, not exceeding 7 per cent. of the whole, a fact which seems to preclude a large increase of the pure race.

The Latin nations contribute very little to our population, and the Sclavic still less, while to-day, as from time immemorial, the different branches of the great Teutonic trunk are swarming forth from the most populous regions, to aid in the progress of civilization.

While a brief review of the ethnic derivation of the millions who have transferred their allegiance from the Old World to the New, exhibits a favorable result, other elements of their value to this country require consideration. The wide contrasts between skilled and unskilled labor, between industry and laziness, between economical habits and unthrift, indicates a marked variation in the capital value of the immigrant to the country. The unskilled laborers, who at once engage in subduing the forests, or cultivating the prairies, are of far more value to the country than those who remain in the large cities.

Deducting the women and children, who pursue no occupation, about 46 per cent. of the whole immigration have been trained to various pursuits. Nearly half of these are skilled laborers and workmen who have acquired their trades under the rigorous system which prevails in the Old World, and come here to give us the benefit of their training and skill without repayment of the cost of such education. Nor are the farm laborers and servants destitute of the necessary training to fit them for their several duties, while those classed as common or unskilled laborers are well qualified to perform the labor required, especially in the construction of works of internal improvement. Nearly 10 per cent. consist of merchants and traders, who doubtless bring with them considerable capital as well as mercantile experience, while the smaller number of professional men and artists, embracing architects, engineers, inventors, men of thorough training and a high order of talent, contribute to our widely extended community not only material, but artistic, esthetic, intellectual, and moral wealth.

With regard to the ages of these immigrants, only 25 per cent. are under 15 years of age, and less than 15 per cent. over 40, leaving upward of 60 per cent. who are in the prime of life at the time of their arrival, ready to enter at once into their several industrial pursuits.

As to the proportion which subsists between the two sexes, it appears that, as might have been expected, the number of the males largely preponderates over the females. This proportion varies with the different nationalities, the females constituting, as has been stated, with the Chinese, only 7 per cent., while of the Irish it is over 45 per cent., and of the whole number about 40 per cent.

Recurring to the money value of an immigrant, it may be stated that the sum of \$1,000 has usually been regarded as the average worth of each permanent addition to our population, an amount somewhat too large, but yet an approximation to the true value. Mr. Kapp, one of the commissioners of emigration of the State of New York, who has given much consideration to the subject now under review, assumes the average value to be \$1,125.

The following extracts from his work on immigration* are pertinent to this inquiry:

A prominent German statistician, Dr. Engel, of Berlin, director of the Prussian sta-

* *Immigration and the Commissioners of Emigration of the State of New York*, by Frederick Kapp, one of the commissioners: New York, 1870.

tistical bureau, in an able treatise on the price of labor, distinguishes three periods in the economic life of each man: two unproductive and one productive period. The first comprises the raising and education of the individual, and continues until he reaches his fifteenth year. It is, of course, not only unproductive, but causes considerable outlay. The second, extending from the fifteenth to the sixty-fifth year, is the productive time of life. The third comprises the unproductive years of old age after sixty-five. Dr. Engel calls the first the juvenile, the second the labor, and the third the aged period.

It is only during this productive period that man is able to subsist on the result of his own labor. In the juvenile period he is dependent on the assistance of others, and in the aged period he has to live upon the accumulated fruits of the productive years.

Whether or not the child in its first period lives at the expense of his parents, there must be means for its maintenance and education, and as nature does not spontaneously furnish these means, and as they cannot be provided by others without danger of impoverishment, if not replaced, they must be obtained by labor. This labor is performed during the productive period, in which the following three objects should be attained, viz:

1. The payment of the expenses incurred for the support and education of the child in the juvenile period.

2. The satisfaction of the daily wants, and the maintenance of the productive power of the individual.

3. The laying up of a surplus fund for his sustenance during the aged period. Thus the cost of the bringing up and education of a man constitutes a specific value, which benefits that country which the adult individual makes the field of his physical and intellectual exertions. This value is represented by the outlay which is necessary to produce an ordinary laborer. An immigrant, therefore, is worth just as much to this country as it costs to produce a native-born laborer of the same average ability.

It is evident that the capital value which a grown-up able-bodied immigrant represents is different according to his station in life and the civilization of the country whence he comes. The wants of a skilled and unskilled laborer from the same country differ widely. Those of the Englishman are different from those of the Irishman. The German must be measured by another standard than the Mexican or South American. Their mode of life, their economical habits and practical pursuits, have little in common; and hence the benefit to the country of their adoption varies according to their respective previous relations. It is certain, however, that each emigrant brings, independently of his personal property, a certain increase of wealth to this country, which increase is paid by the country from which he comes, and accordingly must be credited to it.

In order to arrive at the most accurate possible estimate of this addition of wealth, it is necessary to inquire into the cost of raising and educating, in this country, a man whose means of living are wholly derived from his physical labor.

Dr. Engel computes the cost of raising a manual laborer in Germany at 40 thalers a year for the first five years of his life; at 50 thalers for the next five years; and at 60 thalers from the eleventh to the fifteenth year, thus arriving at an average of 50 thalers per year, or 750 thalers in all. Assuming that in this country subsistence costs about twice as much as in Germany, I do not think I shall be far from the truth in doubling Engel's estimates, and in assuming the expense of bringing up an American farmer or unskilled laborer for the first fifteen years of his life to average 100 thalers per year, or a total of 1,500 thalers, equal to about \$1,500 currency. Following Dr. Engel's estimate, an American girl will be found to cost only about half of that, or \$750, for the reason that she becomes useful to the household from an early age. Allowance must be made, it is true, for the fact that about one-fifth of the emigrants are less than fifteen years old; but this is fully balanced by the great preponderance of men over women, and by thousands who represent the highest order of skilled labor. Hence I feel safe in assuming the capital value of each male and female emigrant to be \$1,500 and \$750 respectively for every person of either sex, making an average for both of \$1,125.

The opinions and deductions of so eminent a statistician as Dr. Engel are entitled to great consideration. It is with much diffidence, therefore, that the undersigned dissents from his conclusions as well as from those of Mr. Kapp. Both gentlemen, it is believed, are misled by adopting the popular maxim that an article is worth what it costs to produce it. It is true that the cost of production as an element in computing the true value should not be lost sight of; but is it not more correct to say, the value of an article is what it will bring in the market? The almost universal law of supply and demand governs the labor as well as the produce market. It may cost the farmer of the Northwest *75 cents to produce a bushel of wheat*; but if, owing to a limited demand, *he obtain but 60 cents for part of his crop, and, at a later period, owing*

to an unusual demand, 90 cents for the remainder, the cost of the wheat continues at 75 cents, while the value is respectively 60 and 90 cents.

Velocipedes, which cost the maker \$50 each, some of which were sold two years since at \$75, would probably be fully valued now at \$10. The extraordinary demand at the former period increased their value, while the absence of all demand at this time reduces their value to the sum which the iron and wood will bring as raw materials. So with human beings, regarded only as instruments of production. The son of a rich man, whose rearing and education cost \$20,000, if not trained to usefulness, is worth far less to the community than the son of a mechanic of small income, whose whole cost has not exceeded \$2,000, if the latter be a well-instructed and skilled artisan. Transport from Germany to a sparsely settled portion of the Northwest two men: the one, a healthy laborer, with limited education, costing the estimated sum of \$1,500, the other, a highly educated man—an architect—but of inferior muscular development, whose money cost was \$10,000. As no demand exists for fine public buildings or elegant private mansions in that locality the worth of the latter is far less than that of the former; while in one of the large cities, unless there is an over-supply of architects, his value will greatly exceed that of the other, who can do nothing more profitable than carry bricks and mortar for the erection of a building which is designed and supervised by the architect.

But the question, what is the average money value of an immigrant? is yet unanswered. To resolve it, other elements than those already mentioned must receive consideration. The immigrant must be regarded both as a producer and as a consumer. In treating the whole number of immigrants as producers, the non-producers must first be excluded. These consist of the very aged and the very young, and of those who are unable to labor, whether from sickness, physical inability, or mental condition, whether in or out of charitable or reformatory institutions, and of the criminal or vicious class, whether in or out of prison. In this category may also be included those whose occupations or pursuits tend to demoralize or injure society. The social statistics of the foreign-born population being imperfect, it will perhaps be possible to estimate the productiveness of the whole by taking the earnings of unskilled laborers; offsetting the increased productiveness and earnings of skilled workmen against the unproductiveness of the classes above mentioned.

The wages of laborers and unskilled workmen throughout the country average very nearly \$400 per year. Assuming that the families of these men consist of four persons, we have \$100 as the amount which each individual produces, and to which also he is restricted in consumption. The estimated yearly expenditures of the family of a laborer, consisting of two adults and two small children, (if any are larger it is probable that they earn something in addition,) is as follows: For tea, coffee, sugar, and other foreign goods, which pay a duty of about 60 per cent. to the Government, \$60; flour, meat, and butter, about \$150; rent, \$50; fuel and light, \$30; vegetables, \$30; milk, eggs, &c., \$20; leaving \$60 for clothing, housekeeping goods, &c. As most of these expenditures are for articles of domestic product which pay a succession of profits, not only to the retailer, wholesale dealer, and producer, but to the transporter, the sum of these net profits constitutes the aggregate amount which this family contributes to the wealth of the country. A careful computation gives \$160, which sum is the measure alike of their production and consumption. As producers and consumers, then, each is worth to the country \$40 per annum, which capitalized at five per cent., gives \$800 as the average value of an immigrant.

As a large number, especially those from Northern Europe, engage at once in the cultivation of the soil on their own account, it is desirable to ascertain the increment to the wealth of the country consequent upon their industry. This appears in the form of productive fields reclaimed from the wilderness, buildings and fences erected, agricultural implements and stock accumulated, &c. In the absence of correct data, the sum of \$160 by a family of four persons, or \$40 each, is considered an approximate estimate of the yearly addition to the realized wealth of the country by such improvements. The figures of the census recently taken will doubtless show that an immense aggregate increase in the national wealth is due to this source alone. Being the result of voluntary industry and self-imposed economy, it is an increase which remains in the hands of the immigrants themselves, who thus contribute to the state that highest form of wealth, a sturdy, moral, intelligent, and independent yeomanry, the very balance-wheel of national machinery.

Data will soon exist by which the average production will be tested. It is believed that the statistics of the census of 1870, when compiled, will exhibit the average value of real and personal estate in the Union at about \$800 per capita, and the annual increase about 5 per cent., or \$40. Now, while the property owned by the foreign-born population does not average \$800, yet in productiveness, it is believed, they contribute their full share.

It should not be forgotten, however, that these immigrants bring with them some money, estimated at \$100 by Mr. Kapp, and at \$80 by Mr. Wells, but inasmuch as a careful investigation was made at Castle Garden, New York, which resulted in establishing \$68 as the average sum brought by alien passengers, that amount is assumed as the correct one. As the greater part, if not the whole of this sum, is required to take the immigrant to his destination, and to support him until he becomes a producer, the amount of money which he brings with him is omitted in the foregoing estimate of his capital value. If his annual value to the country be capitalized at 6 per cent. instead of 5, and the largest estimate of money brought with him (\$100) included, it would aggregate less than \$800, the amount already estimated as his capital value.

From the foregoing considerations, therefore, the sum of \$800 seems to be the full average capital value of each immigrant. At this rate those who landed upon our shores during the year just closed, added upwards of \$285,000,000 to our national wealth, while during the last half century the increment from this source exceeds \$6,243,880,800. It is impossible to make an intelligent estimate of the value to the country of those foreign-born citizens who brought their educated minds, their cultivated tastes, their skill in the arts, and their inventive genius. In almost every walk of life their influence has been felt. Alike in the fearful ordeal of war and in the pursuits of peace, in our legislative halls, and in the various learned professions, the adopted sons of America have attained eminence. Among the many who rendered timely aid to our country during the late war, it may seem invidious to mention a single name, except for the purpose of illustration. In the year 1839 there arrived at the port of New York, in the steamship "British Queen," which sailed from the port of London, a Swedish immigrant, better known as Captain John Ericsson. What was his value to the country, as estimated on the ninth day of March, 1862? was it eight hundred, eight hundred thousand, or eight millions of dollars?

The following tabular statements of the nationalities, occupations, &c., of alien passengers who arrived in the United States previous to December 31, 1870, are appended:

SPECIAL REPORT ON IMMIGRATION.

XI

No. 1.—*A statement, by countries, of the number of alien passengers arrived in the United States from foreign countries, from the commencement of the Government to December 31, 1870. [The dates are inclusive.]*

Countries.	Prior to 1820.	1820 to 1830.	1831 to 1840.	1841 to 1850.	1851 to 1860.	1861 to 1870.	Aggregate.
England.....		15,837	7,611	32,092	247,125	213,527	516,192
Ireland*		57,278	198,233	733,434	936,665	774,883	2,700,493
Scotland.....		3,180	2,667	3,712	38,331	36,733	84,623
Wales.....		170	185	1,261	6,319	4,500	12,435
Great Britain, not specified.....		5,362	74,495	277,264	100,653	77,333	544,107
Total from British Isles.....		81,827	283,191	1,047,763	1,338,093	1,106,976	3,857,850
Germany.....		7,583	148,204	422,477	907,780	781,456	2,267,500
Prussia.....		146	4,250	13,149	43,887	40,551	100,983
Austria.....						9,398	9,398
Sweden and Norway.....		94	1,201	13,903	20,931	117,799	153,928
Denmark.....		189	1,063	539	3,749	17,885	23,425
Holland.....		1,127	1,412	2,251	10,789	9,539	31,118
France.....		8,808	45,575	77,262	76,358	37,749	245,812
Switzerland.....		3,257	4,821	4,644	25,011	23,839	61,572
Belgium.....		28	32	5,074	4,738	7,416	17,278
Spain.....		2,016	2,135	2,209	9,298	6,966	23,214
Portugal.....		180	829	550	1,055	2,081	4,695
Italy.....		389	2,211	1,590	7,012	12,796	23,998
Sardinia.....		32	7	201	1,790	73	2,103
Sicily.....		17	35	79	429	115	675
Malta.....		1	35	78	5	8	127
Greece.....		20	49	16	31	82	198
Russia.....		89	277	551	457	2,671	4,045
Poland.....		21	369	105	1,164	2,379	4,038
Hungary.....						488	488
Turkey.....		21	7	59	83	137	307
China.....		3	8	35	41,397	68,059	109,592
Japan.....						259	259
India.....		9	39	36	43	81	208
Arabia.....						34	34
Syria.....						4	4
Persia.....				7		7	14
Asia, not specified.....		3	1	4	15	4	27
Cape of Good Hope.....		2				86	88
Liberia.....		1	8	5	19	31	64
Egypt.....			4		5	11	20
Abyssinia.....						5	5
Africa, not specified.....		10	36	47	186	191	470
British America.....		2,486	13,624	41,723	59,309	107,349	284,491
Mexico.....		4,818	6,599	3,271	3,078	2,386	20,152
Central America.....		107	44	368	449	96	1,064
Guiana.....						55	55
Venezuela.....						47	47
Pera.....						41	41
Chili.....						30	30
Brazil.....						54	54
Buenos Ayres.....						10	10
Bolivia.....						3	3
New Granada.....						10	10
Paraguay.....						1	1
South America, not specified.....		542	856	3,579	1,224	1,192	7,393
Cuba.....						4,240	4,240
Jamaica.....						100	100
Hayti.....						98	98
Porto Rico.....						57	57
West Indies, not specified.....		3,998	12,301	13,528	10,660	5,205	45,692
Australia.....		2	3		104	138	247
Sandwich Islands.....		1	6	28	44	76	155
East India Islands.....		79				21	100
New Zealand.....					4	15	19
Society Islands.....				1	6		7
Islands of the Pacific, not specified.....						5	5
Azores.....		13	29	327	2,873	3,643	6,885
Bermudas.....						63	63
Cape de Verdes.....		4	15	3	7	43	72
Madeira.....		70	52	3	189	9	323
St. Helena.....			1	3	13	16	33
Canary Islands.....		271	6	1	8	4	290
Miquelon.....						4	4
Iceland.....					10	1	11
Countries not specified.....	250,000	32,894	69,801	52,777	25,911	57,260	483,643
Corsica.....		2	5	2		3	12
Barbary States.....		4	4	3			11
Aggregate.....	250,000	151,824	599,125	1,713,251	2,598,214	2,491,451	7,893,865

* The natives of Ireland are partly estimated on the basis of data obtained by the commissioners of emigration of New York, who have made careful inquiries on this subject. The total from the British Isles, given above, is from official returns to the Bureau of Statistics.

No. 2.—Statement of the Nationalities of the Alien Passengers arrived in the United States during the fifty-one years ended December 31, 1870.

Countries.	1830.*	1831.*	1832.*	1833.*	1834.*	1835.*	1836.*	1837.*	1838.*	1839.*	1840.*	1841.*	1842. and last quarter of 1831.	1833.†
England.....	1,782	3,073	856	851	713	1,092	1,459	2,521	2,735	2,149	733	251	944	2,966
Ireland.....	3,614	1,518	2,267	1,908	2,345	4,888	5,408	9,766	12,488	7,415	2,721	5,772	12,436	8,048
Scotland.....	268	1,293	198	180	257	113	230	460	1,041	111	29	236	158	1,921
Wales.....	.....	11	13	69	33	11	6	3	17	3	7	131	3	29
Great Britain, not specified;.....	360	315	154	.....	261	969	624	1,205	1,559	916	384	1,867	4,229	.....
Total from British Isles.....	6,024	4,728	3,488	3,008	3,609	6,983	7,727	13,952	17,840	10,594	3,874	8,247	17,767	13,564
Germany.....	948	365	139	179	224	448	495	425	1,826	582	1,972	2,395	10,168	6,823
Prussia.....	20	18	9	4	6	2	16	7	45	15	4	18	26	165
Austria.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sweden and Norway.....	3	12	10	1	9	4	16	13	10	13	3	13	313	16
Denmark.....	20	12	18	6	11	14	10	15	50	17	16	23	21	173
Holland.....	49	56	51	19	40	37	176	245	263	169	22	175	205	39
France.....	371	370	351	460	377	515	545	1,280	2,843	582	1,174	2,038	5,361	4,682
Switzerland.....	31	93	110	47	253	166	245	297	1,552	314	1,109	129	1	634
Belgium.....	2	2	10	2	1	1	2	7	2	202	21	37	106	516
Spain.....	139	191	132	220	359	273	436	414	209	14	9	3	5	633
Portugal.....	35	18	28	24	13	13	16	7	30	16	8	28	2	1,693
Italy.....	25	62	32	32	41	58	50	35	30	16	8	28	2	1,693
Sardinia.....	5	.....	1	1	2	17	6	.....	4	7	1	.....	1	6
Sicily.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5
Malta.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Greece.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5
Russia.....	14	7	10	7	5	10	4	19	7	1	3	1	52	159
Poland.....	5	1	3	3	4	1	.....	1	1	.....	2	.....	34	1
Hungary.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Turkey.....	1	1	4	2	2	.....	2	1	6	1	2	.....	.....	1
China.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Japan.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
India.....	1	.....	1	.....	1	.....	1	1	3	1	.....	1	4	3
Arabia.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Syria.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Persia.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Asia, not specified.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cape of Good Hope.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Liberia.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Egypt.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Albyssinia.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Africa, not specified.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
British America.....	209	184	204	167	155	314	223	165	267	409	189	176	608	1,194
Mexico.....	1	4	5	35	110	68	106	127	1,089	2,290	983	692	897	1,779
Central America.....	2	.....	3	.....	10	8	12	7	5	10	50	3	6	18

No. 2.—Statement of the Nationalities of the Alien Passengers arrived in the United States, &c.—Continued.

Countries.	1834.*	1835.*	1836.*	1837.*	1838.*	1839.*	1840.*	1841.*	1842.*	1843.†	1844.‡	1845.§	1846.||
England.....	1,129	468	490	896	157	62	318	147	1,743	3,517	1,357	1,710	2,854
Ireland.....	24,474	20,927	30,578	28,508	12,645	22,963	29,480	37,772	51,342	19,070	33,490	44,821	51,752
Scotland.....	110	63	106	14	48	..	21	35	24	41	23	368	303
Wales.....	1	16	2	6	..	..	..	55	38	..	3	11	147
Great Britain, not specified.....	9,250	8,423	12,578	11,302	5,215	10,209	2,274	15,951	90,200	4,872	12,970	17,121	18,874
Total from British Isles.....	34,964	29,897	43,684	40,726	18,065	34,234	42,043	53,960	73,347	28,100	47,843	64,031	73,932
Germany.....	17,654	8,245	20,139	23,036	11,369	19,794	28,581	13,727	18,287	11,432	19,226	33,138	57,010
Prussia.....	32	66	568	704	314	1,234	1,123	1,564	2,083	3,009	1,505	1,217	551
Austria.....	..	..	..	..	..	..	..	..	..	..	..	..	..
Sweden and Norway.....	42	37	57	290	60	324	55	195	553	1,748	1,311	998	1,916
Denmark.....	24	31	416	109	52	56	152	31	35	29	25	54	114
Holland.....	87	124	301	312	275	7,198	57	214	330	330	184	714	979
France.....	2,959	2,696	4,443	5,074	3,675	12,858	7,419	5,008	4,504	3,346	3,155	7,663	10,583
Switzerland.....	1,389	548	4,445	383	123	607	500	751	833	553	839	741	698
Belgium.....	3	1	..	..	14	1	2	106	44	135	165	541	43
Spain.....	107	183	180	230	202	428	136	215	122	145	270	304	73
Portugal.....	24	29	34	34	19	12	7	32	12	16	14	14	9
Papal States.....	103	56	107	36	82	70	28	..	93	108	79	63	88
Sardinia.....	..	..	..	..	..	6	..	..	3	6	58	59	59
Sicily.....	1	4	8	3	4	..	9	13	4	4	4	5	4
Malta.....	..	..	..	..	..	28	..	66	1	5	2	4	4
Greece.....	7	28	2	5	4	..	3	..	1	3	2	2	3
Russia.....	15	9	2	19	13	7	..	174	28	6	13	1	248
Poland.....	54	54	53	81	41	46	5	15	10	17	36	6	4
Hungary.....	..	..	..	..	..	..	..	..	..	..	..	..	..
Turkey.....	1	..	..	..	..	..	..	..	..	..	..	..	..
China.....	..	3	..	..	..	1	1	6	2	5	10	3	4
Japan.....	..	..	..	..	..	..	..	..	..	..	..	..	..
India.....	8	..	..	..	..	..	..	2	4	3	3	6	7
Arabia.....	6	8	4	11	1	..	1	1	2	2	1	..	..
Syria.....	..	..	..	..	..	..	..	..	..	..	..	..	..
Persia.....	..	..	..	..	..	..	..	..	..	..	..	..	..
Asia, not specified.....	1	..	..	..	..	..	..	..	1	6	..	..	..
Cape of Good Hope.....	..	..	..	..	..	..	..	..	..	..	2	..	..
Liberia.....	..	..	..	..	..	8	..	..	..	..	5	..	..
Egypt.....	..	..	..	..	..	..	..	..	..	..	..	..	..
Abysinia.....	..	..	..	..	..	..	..	..	..	..	..	..	..
Africa, not specified.....	1	14	6	2	2	..	6	14	3	6	9	3	..
British America.....	1,020	1,193	2,814	1,279	1,476	1,926	1,998	1,816	2,078	1,502	2,711	3,185	3,855
Mexico.....	885	1,032	798	627	211	353	395	352	403	398	197	498	922
Central America.....	1	12	..	21	5
Guiana.....	9	4	..	4
Venezuela.....

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[illegible]

* Calendar years.

First three quarters.

Years ended September 30.

§ To obtain the net immigration about one and two-thirds per cent. of the total aliens should be deducted for aliens not intending to remain in the United States. Those who died on the voyage to the United States are also unavoidably included in these figures.

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Peru	13	5	4	1	4	7	2	5	41
Chili	8	2	1	1	1	4	30
Brazil	9	1	3	8	18	14	54
Buenos Ayres	3	4	3	10
Bolivia	3
New Granada .....	.....	.....	.....	1	.....	.....	.....	.....	.....	8	10
Paraguay .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
South America, not specified .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7,393
Cuba	41	132	88	140	132	273	106	136	35	29	4,240
Jamaica	146	212	150	98	326	209	333	392	1,642	642	1,100
Haiti	20	4	.....	.....	6	5	2	46	1	16	98
Porto Rico	16	25	5	3	7	6	6	10	5	18	57
West Indies, not specified	4	5	.....	.....	6	.....	7	7	1	15	45,692
Australia	172	339	337	618	506	576	469	403	1,367	418	247
Sandwich Islands	18	13	16	.....	35	12	1	1	33	9	155
East India Islands	3	19	12	5	36	.....	.....	.....	.....	1	100
New Zealand .....	.....	1	2	1	.....	1	.....	.....	11	11	7
Society Islands	2	.....	.....	.....	2	.....	.....	.....	.....	.....	19
Islands of the Pacific, not specified .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5
Azores .....	.....	2	.....	.....	.....	.....	.....	.....	.....	3	6,855
Bermudas	262	157	227	460	530	349	349	307	440	560	63
Cape de Verdes	22	4	.....	3	17	5	4	.....	3	5	72
Madaira	1	.....	.....	.....	2	1	40	.....	.....	1	323
St. Helena .....	.....	.....	.....	.....	.....	1	1	3	.....	7	33
Canary Islands	2	.....	.....	2	4	2	.....	.....	.....	.....	290
Miquelon and St. Pierre .....	.....	.....	.....	1	3	.....	.....	.....	.....	.....	4
Iceland	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	11
Countries not specified	73	254	924	84	8,610	3,165	2,878	8,110	10,656	22,506	238,643
Corsica .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	12
Barbary States .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	11
Total aliens†	91,920	91,987	176,282	193,416	249,061	318,494	298,358	297,215	395,922	378,796	7,553,865
.....	121,282	153,640	.....	.....	.....	.....	.....	.....	.....	.....	.....

* Calendar years.

† The total from the British Isles is correct; but the number from Ireland is partly estimated on the basis of data obtained by the New York commissioners of emigration, who have made diligent inquiries on this subject.

‡ To obtain the net immigration, about one and two-thirds per cent. of the total aliens should be deducted for aliens not intending to remain in the United States. Those who died en voyage to the United States are also unavoidably included in these figures, previous to the year 1867; which accounts for the discrepancies between these totals and those in statement No. 8.

No. 3.—*A Statement, in detail, of the Nationalities of Immigrants arrived in the United States during the fiscal year ended June 30, 1870; also (without distinguishing sex or age) for the calendar year ended December 31, 1870.*

Countries.	For year ended June 30, 1870.			For year ended December 31, 1870.
	Males.	Females.	Total.	
England	38, 106	22, 851	60, 957	59, 488
Ireland*	47, 391	32, 945	80, 336	75, 544
Scotland	7, 605	4, 916	12, 521	11, 830
Wales	574	437	1, 011	672
Great Britain, not specified*	1, 107	4, 741	5, 848	3, 565
Total British Isles	94, 783	65, 890	160, 673	151, 089
Germany	70, 688	47, 537	118, 225	91, 779
Austria	2, 340	2, 084	4, 424	5, 283
Sweden	8, 306	5, 137	13, 443	12, 009
Norway	8, 003	5, 213	13, 216	12, 356
Denmark	2, 519	1, 564	4, 083	3, 041
Holland	663	403	1, 066	970
Belgium	718	284	1, 002	1, 039
Switzerland	2, 002	1, 073	3, 075	2, 474
France	2, 691	1, 316	4, 007	3, 586
Spain	487	176	663	511
Portugal	175	80	255	291
Italy	2, 132	759	2, 891	2, 940
Greece	20	2	22	15
Turkey	6	—	6	13
Russia	550	357	907	766
Poland	140	83	223	424
Hungary	1	—	1	1
Corsica	2	—	2	3
China	14, 624	1, 116	15, 740	11, 943
Japan	46	2	48	74
India	19	5	24	32
Asia not specified	1	—	1	9
South Africa	15	5	20	12
Africa, not specified	11	—	11	12
Dominion of Canada	21, 647	16, 261	37, 908	51, 278
Prince Edward's Island	731	1, 015	1, 746	1, 678
Newfoundland	157	301	458	255
British Columbia	12	3	15	9
British North American Provinces, not specified	176	108	284	120
Mexico	358	105	463	461
Central America	31	2	33	25
New Granada	1	—	1	8
Venezuela	1	—	1	9
Guiana	6	4	10	12
Brazil	13	—	13	14
Chili	2	—	2	4
South America, not specified	36	6	42	37
Cuba	848	385	1, 233	642
Hayti	1	1	2	18
Jamaica	1	—	1	16
Porto Rico	9	—	9	15
Barbadoes	5	3	8	—
New Providence	3	5	8	—
West Indies, not specified	314	104	418	418
Azore Islands	275	167	442	560
St. Helena	2	3	5	7
Bermudas	3	—	3	5
Australia	14	14	28	9
East India Islands	9	3	12	1
New Zealand	3	5	8	11
Countries not stated	12	10	22	22, 512
Total alien passengers	235, 612	151, 591	387, 203	378, 796
Deduct No. not intending to remain in United States	—	—	—	22, 493
Total immigrants	—	—	—	356, 303

* Total from the British Isles is correct. The natives of Ireland are estimated from data obtained after diligent inquiry by the New York commissioners of emigration.

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No. 4.—Statement showing the numbers and nativities of alien immigrants who arrived at the port of New York during the ten years ended December 31, 1870.

[From the report of the New York Commissioners of Emigration.]

Nationality.	1861.	1862.	1863.	1864.	1865.	1866.	1867.	1868.	1869.	1870.
Ireland	25,784	32,217	91,157	89,399	70,462	68,047	65,134	47,571	66,204	64,168
Germany	27,139	27,740	35,002	57,446	83,451	106,716	117,591	101,989	99,605	72,368
England	5,632	7,975	18,757	23,710	27,286	36,186	33,712	29,695	41,090	38,340
Scotland	639	692	1,937	1,126	3,962	4,979	6,315	7,390	10,643	10,731
France	1,200	1,187	1,303	1,804	2,059	3,246	3,204	2,811	2,795	2,210
Switzerland	1,398	1,254	1,194	1,652	2,513	3,685	3,985	3,302	2,999	537
Holland	331	456	407	615	729	1,506	2,156	1,265	1,247	525
Wales	697	1,062	1,143	659	505	540	142	699	1,111	545
Norway	93	22	238	88	158	583	209	1,008	3,465	2,678
Sweden	382	663	1,370	1,516	2,337	3,907	4,843	14,529	23,453	11,549
Italy	750	487	444	475	591	918	1,032	993	1,548	2,081
Belgium	165	195	456	186	97	157	1,623	149	146	83
Spain	190	124	202	196	224	315	203	210	210	156
West Indies	165	156	256	236	283	246	214	171	378	140
Denmark	612	1,689	1,580	565	727	1,526	1,372	1,087	2,600	2,441
Poland	43	50	137	198	423	231	268	268	598	577
Sardinia	67	39						1		
South America	88	92	60	124	109	155	97	134	102	34
Portugal	14	13	3	34	42	96	79	13	60	5
Nova Scotia	11	67	77	40	77	40	22	52	119	23
Russia	36	46	47	37	93	154	185	145	376	433
Canada	19	33	17	35	43	28	42	33	27	34
Mexico	45	13	38	92	70	56	28	34	90	37
Sicily	1	9	1	3	3	1		3		
China	10	15	5	41	36	26	17	49	15	20
East Indies	2	1	3	1	7	15	4	2	25	13
Greece	1	6	2	13	5	5	8	10	7	14
Turkey	5	3	2	5	5	8	6	22	5	1
Africa			6		37	15	2	10	17	11
Japan					18	12	87	3	4	1
Australia							44	26	12	9
Central America						7	7	21	38	24
Unknown						12				
Annual total	65,539	76,306	156,844	182,296	196,352	233,418	242,731	213,686	252,989	211,190

No. 5.—*A Statement, in detail, of the Occupations of Immigrants arrived in the United States during the fiscal year ended June 30, 1870.*

Occupations.	Males.	Females.	Total.	Occupations.	Males.	Females.	Total.
PROFESSIONAL CALLINGS.				Miners	4,763		4,763
Actors	4		4	Molders	2		2
Chemists	43		43	Nail-makers	19		19
Clergymen	285		285	Painters	753		753
Dentists	3		3	Pilot	1		1
Engineers	551		551	Plumbers	7		7
Farriers	7		7	Potters	8		8
Lawyers	77		77	Printers	180		180
Musicians	282	7	289	Puddlers	2		2
Naturalists	3		3	Rope-makers	3		3
Physicians	232		232	Saddlers	167		167
Priests	10		10	Sail-makers	12		12
Reporters	2		2	Sawyer	1		1
Surgeon	1		1	Scamstresses		505	505
Surveyor	1		1	Shipwrights	9		9
Teachers	222	271	493	Shoebinder		1	1
Professions not stated	131		131	Shoemakers	1,557		1,557
				Soapmakers	2		2
Total	1,854	278	2,132	Spinners	7	3	10
ARTISTS.				Stonecutters	122		122
Architects	3		3	Tailors	1,660	43	1,703
Carver	1		1	Tanners	102		102
Engraver	1		1	Telegraph operator	1		1
Image-maker	1		1	Tinners	26		26
Lithographer	1		1	Turners	8		8
Photographers	3		3	Weavers	1,178		1,178
Artists not stated	170	20	190	Wheelwrights	29		29
				Wool sorter	1		1
Total	180	20	200	Mechanics not stated	8,061		8,061
SKILLED WORKMEN.				Total	31,372	592	31,964
Bakers	990		990	MISCELLANEOUS OCCUPATIONS.			
Barbers	21		21	Agents	37		37
Blacksmiths	2,378		2,378	Brokers	2		2
Block-makers	3		3	Caterer	1		1
Boiler-makers	3		3	Clerks	1,611		1,611
Bookbinders	9	1	10	Consuls	4		4
Braziers	3		3	Contractors	4		4
Brewers	362		362	Cooks	66	7	73
Brick-makers	3		3	Druggists	51		51
Butchers	727		727	Editors	3		3
Cabinet-makers	6		6	Farmers	35,550	106	35,656
Carpenters	4,421		4,421	Firemen	22		22
Caulkers	6		6	Fishermen	331		331
Chandler	1		1	Gardeners	45	6	51
Cigar-makers	227	1	228	Grocers	2		2
Confectioners	6		6	Hotel-keepers	25		25
Coopers	101		101	Hunter	1		1
Curriers	10		10	Interpreters	4		4
Cutlers	5		5	Jugglers	21	2	23
Distillers	2		2	Laborers	84,220	357	84,577
Divers	2		2	Laundresses		7	7
Dressmakers		21	21	Lumbermen	6		6
Dyers	114		114	Manufacturers	49		49
File-makers	2		2	Merchants	7,056	17	7,073
Fuller	1		1	Nuns		36	36
Furrier	1		1	Nurses		6	6
Gilders	3		3	Officers	16		16
Glaziers	2		2	Operatives		23	23
Gunsmiths	2		2	Overseer	1		1
Hatters	58		58	Peddlers	6		6
Hoe-maker	1		1	Refugees	39	10	49
Instrument-maker	3		3	Rentier	1		1
Iron-workers	3		3	Sailors	1,420		1,420
Jewelers	409		409	Servants	5,115	9,146	14,261
Joiners	343		343	Shepherds	23		23
Locksmiths	13		13	Soldiers	117		117
Masons	2,190		2,190	Stewardess		1	1
Millers	258		258	Students	188		188
Milliners		17	17	Teamsters	6		6
Millwrights	4		4	Travelers	15		15
				Total	136,058	9,724	145,782

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No. 5.—Statement of the Occupation of Immigrants arrived in United States, &c.—Continued.
RECAPITULATION.

Occupations.	Males.	Females.	Total.
Professional callings.....	1, 254	278	2, 132
Artists.....	180	20	200
Skilled workmen.....	31, 372	592	31, 964
Miscellaneous occupations.....	133, 658	9, 724	143, 782
Without occupation.....	3, 606	12, 723	16, 529
Occupation not stated.....	62, 342	128, 254	190, 596
Aggregate.....	235, 612	151, 591	387, 203

No. 6.—A Comparative Statement of Immigration and Emigration for the four and a half years from July 1, 1866, to December 31, 1870, inclusive.

Period.	Total number of passengers arrived in the United States.	Total number of passengers departed from the United States.	Excess of arrivals over departures, or total increase of population by immigration.	Passengers not immigrants.	Net immigration.	Net emigration.
July 1 to December 31, 1866.....	174, 068	34, 153	139, 915	25, 353	148, 715	8, 890
January 1 to June 30, 1867.....	168, 094	34, 546	133, 548	17, 842	150, 252	16, 704
Fiscal year ended June 30, 1867.....	342, 162	68, 699	273, 463	43, 195	228, 967	25, 504
July 1 to December 31, 1867.....	171, 533	33, 318	138, 215	28, 184	143, 349	5, 134
Calendar year 1867.....	339, 627	67, 864	271, 763	46, 036	229, 161	21, 838
January 1 to June 30, 1868.....	156, 615	34, 017	122, 598	17, 775	138, 840	16, 242
Fiscal year ended June 30, 1868.....	328, 148	67, 335	260, 813	45, 959	222, 189	21, 376
July 1 to December 31, 1868.....	169, 617	39, 521	130, 096	19, 312	150, 305	20, 220
Calendar year 1868.....	326, 232	73, 538	252, 694	37, 087	229, 145	36, 451
January 1 to June 30, 1869.....	220, 274	34, 341	185, 933	17, 811	222, 463	16, 550
Fiscal year ended June 30, 1869.....	389, 891	73, 862	316, 029	37, 123	352, 768	36, 739
July 1 to December 31, 1869.....	278, 929	43, 608	165, 321	26, 105	182, 824	17, 503
Calendar year 1869.....	429, 203	77, 949	351, 254	43, 916	385, 287	34, 033
January 1 to June 30, 1870.....	227, 856	38, 278	189, 578	23, 477	204, 379	14, 891
Fiscal year ended June 30, 1870.....	436, 785	81, 886	354, 899	49, 582	387, 203	32, 304
July 1 to December 31, 1870.....	192, 142	*50, 000	142, 142	40, 218	151, 924	9, 782
Calendar year 1870.....	419, 998	82, 278	331, 720	63, 695	356, 303	24, 582
Total for 4½ years.....	1, 689, 128	341, 782	1, 347, 346	216, 077	1, 473, 051	125, 705

* Estimated.

No. 7.—A Comparative Statement of Immigration for the ten fiscal years from July 1, 1860, to June 30, 1870.

Years ended—	Total number of passengers arrived in the United States.	Passengers not immigrants.			Net immigration.	Total aliens.
		Citizens of United States.	Foreigners not intending to remain in United States.	Total.		
June 30, 1861.....	166, 216	23, 551	2, 137	25, 688	140, 528	142, 665
June 30, 1862.....	92, 375	20, 314	2, 612	22, 926	69, 449	72, 061
June 30, 1863.....	155, 627	22, 811	2, 756	25, 567	130, 060	132, 816
June 30, 1864.....	220, 251	26, 142	355	26, 497	193, 754	194, 109
June 30, 1865.....	212, 972	31, 609	696	32, 305	180, 667	181, 363
June 30, 1866.....	373, 229	40, 731	1, 794	42, 525	330, 704	332, 498
June 30, 1867.....	342, 162	39, 118	4, 077	43, 195	298, 967	303, 044
June 30, 1868.....	328, 148	40, 060	5, 899	45, 959	222, 189	228, 028
June 30, 1869.....	389, 891	26, 817	10, 306	37, 123	352, 768	363, 074
June 30, 1870.....	436, 785	33, 865	15, 717	49, 582	387, 203	402, 920
Total.....	2, 717, 656	305, 018	46, 349	351, 367	2, 366, 289	2, 412, 658

No. 8.—*A Comparative Statement of Immigration for the ten calendar years from 1861 to 1870, inclusive.*

Years ended—	Total number of passengers arrived in the United States.	Passengers not immigrants.			Net immigration.	Total aliens.
		Citizens of United States.	Foreigners not intending to remain in United States.	Total.		
December 31, 1861.....	112,605	20,782	2,103	22,885	89,720	91,823
December 31, 1862.....	114,301	22,476	2,830	25,296	89,003	91,825
December 31, 1863.....	199,744	23,529	1,692	25,221	174,523	176,215
December 31, 1864.....	221,531	23,119	221	23,340	193,191	193,412
December 31, 1865.....	287,390	32,338	638	32,996	248,394	249,052
December 31, 1866.....	359,940	41,449	3,651	45,100	314,840	318,491
December 31, 1867.....	339,627	41,269	4,757	46,026	293,601	298,358
December 31, 1868.....	326,232	29,017	8,070	37,087	289,145	297,215
December 31, 1869.....	427,503	33,281	10,635	43,916	385,287	395,922
December 31, 1870.....	419,998	41,202	22,493	63,695	356,303	378,796
Total.....	2,810,571	319,462	57,100	376,562	2,434,009	2,491,109

No. 9.—*A Statement, by Occupations, of the number of Passengers arrived in the United States for the fifty-one years ended December 31, 1870. [The dates are inclusive.]*

Occupations.	Prior to 1820.	1820 to 1830.	1831 to 1840.	1841 to 1850.	1851 to 1860.	1861 to 1870.	Aggregate.
Laborers.....		10,280	53,169	281,229	527,639	526,199	1,398,516
Farmers.....		15,005	88,240	256,680	404,712	211,742	976,579
Mechanics, not specified.....		6,805	56,582	164,411	173,726	163,994	571,518
Merchants.....		19,434	41,881	46,388	134,149	94,200	326,052
Servants.....		1,327	2,571	24,538	21,058	91,204	140,698
Miners.....		341	368	1,735	37,523	53,214	92,181
Mariners.....		4,985	8,004	6,398	10,087	18,728	48,272
Clerks.....		832	1,143	1,065	792	16,128	20,010
Weavers and spinners.....		2,937	6,690	1,303	717	3,233	14,790
Physicians.....		805	1,059	2,116	2,229	3,244	10,333
Seamstresses, dressmakers, and milliners.....		413	1,672	2,096	1,065	3,405	8,651
Clergymen.....		415	932	1,539	1,420	3,117	7,443
Bakers.....		583	569	28	92	6,766	8,038
Artists.....		139	513	1,223	615	3,069	6,159
Butchers.....		329	432	76	108	5,651	6,596
Tailors.....		983	2,252	65	334	4,786	8,420
Shoemakers.....		1,109	1,966	63	336	4,563	8,037
Manufacturers.....		175	107	1,833	1,005	1,400	4,520
Lawyers.....		244	461	831	1,140	1,545	4,221
Masons.....		793	1,435	24	58	4,682	6,992
Engineers.....		226	311	654	825	1,738	3,754
Teachers.....		275	267	832	154	2,109	3,637
Millers.....		199	189	33	210	648	1,279
Painters.....		232	369	8	38	1,484	2,131
Printers.....		179	472	14	40	512	1,217
Musicians.....		140	165	236	188	612	1,341
Actors.....		183	87	233	85	268	856
Hatters.....		137	114	1	4	192	358
Other occupations.....		5,466	4,004	2,892	13,844	7,972	34,178
Occupations not stated, and without occupation.....	*250,000	101,442	363,252	969,411	1,544,494	1,572,938	4,801,537
Total.....	250,000	176,473	640,086	1,768,175	2,874,687	2,803,913	8,518,334
Deduct citizens of the United States.....		24,649	40,961	54,924	276,473	317,462	714,469
Aliens.....	250,000	151,824	599,125	1,713,251	2,598,214	2,491,451	7,803,865

* Estimated.

No. 10.—*Statement, by customs districts, of the passengers arrived in the United States during the calendar year 1870, distinguishing citizen from alien passengers, and permanent from transient immigrants.*

Districts.	Whole number of passengers arrived in the United States.	Passengers not immigrants.			Net immigration.	Total aliens.
		Citizens of the United States.	Foreigners not intending to remain in the United States.	Total passengers not immigrants.		
Boston and Charlestown	33,962	2,158	1,469	3,627	30,335	31,804
Edgartown	11		11	11		11
Gloucester	123				123	123
New Bedford	118	4	5	9	109	114
Providence	10		1	1	9	10
Fairfield	4	1		1	3	3
New Haven	11	6	3	9	2	5
New York	247,106	10,924	2,494	22,418	224,688	227,182
Philadelphia	582	92	20	112	470	490
Erie	4				4	4
Baltimore	10,037	689	76	765	9,272	9,348
Key West	644	79		79	565	565
Fernandina	12		12	12		12
Texas	544	3		3	541	541
Superior	818		60	60	758	818
Puget Sound	2,855	2,416	428	2,844	11	439
Oregon	1,732	311	105	416	1,316	1,421
Willamette	73	17	22	39	34	56
San Francisco	14,368	1,620		1,620	12,748	12,748
Huron	45,166				45,166	45,166
Passamaquoddy	24,607	2,738	8,465	11,201	13,406	21,871
Portland and Falmouth	7,696	1,203	3,065	4,268	3,428	6,493
New Orleans	5,329	912	337	1,249	4,080	4,417
Detroit	4,800				4,800	4,800
ChAMPLAIN	12,233	6,749	3,667	10,416	1,817	5,484
Salem and Beverly	84				84	84
Charleston	80	10	6	16	64	70
Buffalo Creek	833				833	833
Savannah	21	9	5	14	7	12
Pensacola	52	19		19	33	33
Genesee	4,477	1,690	1,851	3,541	936	2,787
Pearl River	7	6		6	1	1
St. Augustine	8		8	8		8
Alaska	73	73		73		
Cuyahoga	928	401	338	739	189	527
Milwaukee	192				192	192
Chicago	198	41	38	79	119	157
Oswego	107				107	107
Marblehead	64	29		29	35	35
Portsmouth	18				18	18
Newburyport	7		7	7		7
Miami	2	2		2		
New London	2			2		
Aggregate	419,998	41,202	22,493	63,695	356,303	378,796

II.—THE ADVANTAGES OFFERED TO IMMIGRANTS BY VARIOUS SECTIONS OF THE UNITED STATES.

If, in the foregoing review, the fact has been established that the wealth, power, and prosperity of our country have been greatly augmented by immigration, the question naturally presents itself—what are the duties of the Government toward the immigrant, and what action does sound policy require in regard to an interest of so much national importance?

Two things seem imperatively required of the Government: First, protection, and secondly, trustworthy information. Philanthropy alone would dictate that we do all in our power to afford the immigrant protection against improper treatment on the sea voyage hither and against imposition after his arrival; and when the benefits which he confers

upon the country are considered, this philanthropic motive is supplemented by a sense of reciprocal obligation. Moreover, as the ill treatment on shipboard and on shore to which some passengers are yet subject tends to discourage immigration, and thus deprive the country of the advantages resulting therefrom, self-interest, which is as powerful as a more elevated motive, demands that adequate protection be afforded.

The passenger act of 1855 was intended to benefit those who cross the ocean in the steerage of passenger vessels; and although since its enactment marked improvement in their comfort has taken place, yet the impositions which are still to some extent practiced upon comparatively helpless people, and the discomfort to which they are exposed, make necessary either more stringent enactments or a better enforcement of existing laws.

Unexpected obstacles to the strict enforcement of the above act have been encountered in consequence of the construction given to it by its authorized interpreters. While it is to be regretted that so excellent a law has not been and perhaps cannot be strictly enforced, the hope is entertained that the efforts of the Treasury Department to procure concurrent legislation on the part of the leading nations of Europe and of the United States will be successful.

While the dictates of philanthropy as well as of self-interest demand that adequate protection should be given to immigrants, the duty of obtaining and diffusing trustworthy information is equally obligatory upon the Government.

Although the natives of foreign countries no longer believe the exaggerated representations which were formerly made by interested parties as to the unbounded wealth of this country—that silver and gold coin could be picked up in the streets of the large cities, and that animal food, prepared for consumption, was to be gratuitously supplied to them upon their debarkation—yet the advantages and inducement which the various portions of our country offer to intending emigrants are not so well known.

With the view of affording to the immigrant such trustworthy information in regard to the several States as would guide him in making an intelligent choice of a home, the undersigned prepared and forwarded to the assessors of internal revenue in all the States west and south of Pennsylvania circulars containing the following questions:

1. Can land be purchased or rented in your district, suitable for small farms, on favorable terms?
2. What is the price, per acre, of small, improved farms? State what proportion has been under cultivation, how much is fenced, and the kind of buildings.
3. What is the price, per acre, of improved land, what proportion has been under cultivation, and how much, if any, is fenced?
4. What is the yearly rent for small, improved farms? If rented on shares, what share does the owner receive? Does the latter provide stock, implements, or seeds?
5. What are the chief articles of production, and what are the present prices of two or three of them?
6. What is the distance to a market town, a railroad station, or a steamboat landing?
7. What is the general quality of land and the kind of timber?
8. For what kind of labor is there a demand?
9. What mills or factories, if any, are in operation, or in progress, requiring skilled labor?
10. Are there in your vicinity any railroads or other public works in progress, requiring common labor? If so, how far distant?
11. If any foreign-born workmen are employed in your district, please give the preponderating nationality.
12. Please state any advantages which your district can offer to laborers, mechanics, or small farmers. Is there much land of good quality and well watered yet unoccupied?
13. What are the prices of ordinary farm stock, sound and in good condition, *viz*: Working oxen, per pair; working horses, per pair; working mules, each; milch cows each; sheep, each; stock hogs, per pound?

Replies to the above questions from the assistant assessors, in nearly every part of the Western, Southern, and Pacific States, and the Territories, have been received, and the data, as classified and compiled, entitled INFORMATION FOR IMMIGRANTS, are presented in the following pages.

This information, though not so full in regard to some States and Territories as is desirable, may in general be received with confidence. Perhaps, in some instances, those who obtained and furnished the facts have unwittingly permitted their opinions to be somewhat influenced by local attachments.

Tables showing the wages paid in the several States and sections for Factory, Mechanical, and Farm labor; also, the cost of provisions, groceries, dry goods, and house rent in the various manufacturing districts of the country, are also appended to this report.

Very respectfully, your obedient servant,

EDWARD YOUNG,
Chief of Bureau.

Hon. GEORGE S. BOUTWELL,
Secretary of the Treasury.

INFORMATION FOR IMMIGRANTS

RELATIVE TO

THE PRICES AND RENTALS OF LAND, THE STAPLE PRODUCTS, FACILITIES
OF ACCESS TO MARKET, COST OF FARM STOCK, KIND
OF LABOR IN DEMAND IN THE WESTERN
AND SOUTHERN STATES,
ETC., ETC.

TO WHICH ARE APPENDED

TABLES

SHOWING THE AVERAGE WEEKLY WAGES PAID IN THE SEVERAL STATES
AND SECTIONS FOR FACTORY, MECHANICAL, AND FARM LABOR;
THE COST OF PROVISIONS, GROCERIES, DRY GOODS,
AND HOUSE RENT IN THE VARIOUS MANU-
FACTURING DISTRICTS OF THE
COUNTRY, IN THE
YEAR 1869-'70.

[The following information has been compiled from the returns of assistant assessors of Internal Revenue in the various collection districts of the States and Territories hereinafter named, made in response to inquiries addressed by the undersigned to most of them in the winter of 1869-'70; to others at a more recent date. This explanation is rendered necessary by the fact that changes in the prices of certain products, from those given in the following pages, have since occurred, especially of wheat, which has advanced, and of raw cotton, which has considerably receded.]

I. MIDDLE STATES.

PENNSYLVANIA, MARYLAND, AND WEST VIRGINIA.

II. WESTERN AND NORTHWESTERN STATES AND TERRITORIES.

OHIO, KENTUCKY, INDIANA, ILLINOIS, MICHIGAN, WISCONSIN, MINNESOTA, IOWA,
MISSOURI, KANSAS, NEBRASKA, COLORADO, DAKOTA, AND IDAHO.

III. SOUTHERN AND SOUTHWESTERN STATES AND TERRITORIES.

VIRGINIA, NORTH CAROLINA, SOUTH CAROLINA, GEORGIA, FLORIDA, ALABAMA,
MISSISSIPPI, TENNESSEE, ARKANSAS, LOUISIANA, TEXAS,
NEW MEXICO, AND ARIZONA.

IV. PACIFIC STATES AND TERRITORIES.

CALIFORNIA, OREGON, WASHINGTON, AND NEVADA.

I. MIDDLE STATES.

PENNSYLVANIA.

Area, 29,440,000 acres; population in 1870, 3,519,601.

Can land be purchased or rented in your district suitable for small farms on favorable terms?

* Bucks, Lehigh, Montgomery, Berks, Susquehanna, Perry, Adams, Bedford, Warren, Clearfield, Venango, and Crawford: it can. Lancaster, Schuylkill, Blair, Montour, Columbia, Juniata, Union, Cumberland, and York: it cannot. Chester and Lebanon: not on terms that would recommend it to settlers. Carbon: reasonably so. Cambria: arable land in this part of Pennsylvania is generally held in tracts of from 100 to 200 acres. Erie: land is worth from \$50 to \$1,000 per acre; can be rented on favorable terms. Indiana: farms can be purchased upon reasonable terms. Beaver: not much for sale or rent; the price is high. Luzerne: the land is owned by coal operators, and a small portion thereof is farmed by hands employed by them.

What is the price per acre of small improved farms? State what proportion has been under cultivation, how much is fenced, and the kind of buildings.

Bucks: from \$140 to \$175 per acre; all under cultivation, and well fenced; good buildings. Lehigh: from \$175 to \$225 per acre; all arable lands are under cultivation, fenced, and have good substantial buildings; Swiss barns, and houses built mainly of hard stone. Montgomery: from \$75 to \$150 per acre; the greater part under cultivation; generally fenced; buildings mostly of stone and brick. Chester: from \$100 to \$250 per acre; all under cultivation and fenced; buildings ordinarily good; some very fine. Berks: from \$150 to \$200 per acre; all under cultivation, and all fenced; buildings of stone, brick, and frame. Lancaster: from \$100 to \$800 per acre; all under cultivation; the buildings are mostly frame and brick, modern, convenient, and comfortable. Lebanon: from \$200 to \$250 per acre; about nine-tenths under cultivation; very little timber; buildings of brick and stone. Schuylkill: \$60 per acre. All under cultivation and fenced; buildings good. Carbon: from \$40 to \$75 per acre; about two-thirds under cultivation, and about three-quarters fenced; generally wooden buildings two and a half stories high. Susquehanna: from \$45 to \$60; about one-third under cultivation; two-thirds fenced; and quite good farm buildings. Blair: from \$80 to \$100; two-thirds cultivated and fenced; good frame, plank, or brick buildings. Montour: from \$175 to \$225 per acre; about one-half under cultivation and fenced; ordinary frame buildings. Columbia: from \$60 to \$160 per acre; three-quarters under cultivation and fenced. Mostly comfortable frame buildings. Juniata: about \$100 per acre; nearly all under cultivation and fenced; generally frame buildings. Union: \$150 per acre; all fenced; buildings of stone or brick. Perry: land ranges from \$50 to \$150 per acre for farms of 30 to 50 acres with ordinary improvements. In limestone sections, for large farms, from \$75 to \$100 per acre, including timber land. Cumberland: average \$150 per acre; all under cultivation and fenced; buildings excellent. York: from \$30 to \$100 per acre; from three-quarters to seven-eighths under

* Names of counties from which returns have been received.

cultivation; all fenced; buildings generally brick and frame. Adams: farms of from 50 to 100 acres, with small buildings, can be purchased at from \$50 to \$75 per acre; farms of from 120 to 200 acres, with substantial brick or stone houses and large commodious barns, three-quarters under cultivation, with 30 to 40 acres of woodland, all under moderately good fencing; can be purchased at reasonable prices. Bedford: \$25 per acre; about one-half fenced and under cultivation. Cambria: from \$20 to \$50 per acre; about one-half the land occupied is or has been fenced and cultivated. This being a mountainous region much land is yet in forest, and much of it never can be used for farming purposes, and is valuable only for its timber and minerals. The buildings are principally of a very primitive character, but comfortable. Warren: from \$25 to \$50 per acre; one-half to two-thirds under cultivation, and nearly all fenced; none but frame buildings. Erie: small farms in this division are worth from \$100 to \$300 per acre, and near the city are valued at \$1,000 per acre, nearly all under cultivation and fenced. The buildings are generally good, frame or brick. Clearfield: \$33 per acre; one-half under cultivation and fenced; generally frame buildings. Venango: small improved farms are worth from \$15 to \$30 per acre; about two-thirds under cultivation and fenced; generally wood buildings. Crawford: from \$30 to \$50 per acre. From one-half to three-quarters cleared, with ordinary farm buildings. Indiana: farms convenient to railroad, with passable buildings and fences, rate from \$30 to \$60 per acre; from 6 to 10 miles distant, at from \$15 to \$30. Beaver: from \$40 to \$150 per acre, according to location; about one-half under cultivation and fenced. Wooden buildings generally.

What is the price per acre of unimproved land? What proportion is cleared, and how much, if any, is fenced?

Bucks: there is no unimproved land. Lehigh: no unimproved land except mountain land, which is neither fenced nor cleared. Value per acre, \$5. Montgomery: the price of unimproved land from \$5 to \$200 per acre, according to location and quality of soil; mostly fenced. Chester: none, except a small portion of each cultivated farm remaining in woodland for the sake of the timber. Berks: no unimproved land except mountain and iron-ore land, and that varies greatly in price, from \$10 to as many hundreds per acre; such land is not cleared. Lancaster: very little unimproved land except such as is only suitable for growing chestnut and sprout timber; from \$100 to \$150 per acre; mostly fenced. Schuylkill: the unimproved land is coal and mountain land which cannot be improved, and is worth from \$50 to \$500 per acre. Carbon: from \$1 to \$15 per acre; scarcely any cleared or fenced. Susquehanna: \$40 per acre; about one-quarter cleared and fenced. Blair: mountain land from \$2 to \$10 per acre; not fenced and without buildings. Montour: only mineral lands, of uncertain value. Wyoming, Columbia, and Juniata: no unimproved land that can be improved. Union: none except mountain land, which sells for wood or timber lots at from \$20 to \$50 per acre. Perry: for good timber land from \$20 to \$40 per acre. Ridge land from \$20 to \$30; about one-quarter is cleared, and three-quarters fenced. York: from \$10 to \$30 per acre; none cleared, and none fenced. Adams: from \$25 to \$30 per acre, without buildings, under ordinary fencing; from one-half to five-sixths uncleared. Bedford: \$5 per acre; none cultivated nor fenced. Cambria: it has but a nominal value, except for timber and mineral; mountain timber land can be bought at from \$1 to \$10 per acre. Warren: from \$10 to \$40 per acre; about three-quarters cleared, nearly all fenced. Clearfield: from \$20 to \$60 per acre; from one-quarter to one-half improved and fenced. Venango:

from \$5 to \$25 per acre; none cleared and none fenced. Crawford: very little such land in this region. The price would probably be from \$20 to \$25 per acre. Indiana and Beaver: from \$20 to \$50 per acre; very little fenced or cleared. Luzerne: all coal land; from \$100 to \$600 per acre.

What is the yearly rent of small improved farms? If rented on shares, what share does the owner receive? Does the latter provide stock, implements, or seeds?

Bucks: from \$600 to \$1,000 a year; when rented on shares the owner receives one-half of the crop; the renter finds stock, seed, and labor. Lehigh: the owner receives one-half of all winter grain and corn, and one-third of oats, barley, buckwheat, &c.; he keeps the farm in repair, including fence, material, fertilizers, &c.; furnishes one-half the seed; the tenant provides stock, implements, labor, &c. Montgomery: rent about \$8 per acre; on shares, owner receives one-half the product, furnishes one-half the seeds, and sometimes provides half the stock. Chester: from \$300 to \$500 per annum; if on shares, the owner receives one-half of the product; sometimes provides implements and seeds, but not stock. Berks: yearly rental from \$1,000 to \$2,000, according to size of farm and quality of land; if rented on shares the owner gets one-half; owners rarely provide stock, implements, or seeds. Lancaster: about \$13 per acre per annum for good land; generally rented on shares, the owner receiving one-half of the grain crop, he furnishing half the seeds. Lebanon: the owner gets one-half the crop, he furnishing one-half the seeds. Schuylkill: the owner receives the value of one-half the product, after deducting the cost of implements and seeds. Carbon, Clearfield, and Venango: the owner receives one-third; provides nothing. Susquehanna: about three per cent. upon the value of farm; the owner provides one-half the seeds only, and receives half the product. Blair: the owner receives two-fifths of product, and provides nothing. Montour: the owner receives one-half the product, and furnishes half of the seeds and implements, but no stock. Columbia, Juniata, Union, Perry, and Cumberland: the owner receives one-half, furnishing half the seed; York and Bedford: owner receives one-third, and sometimes two-fifths, and provides nothing. Adams, Cambria, Warren, and Erie: one-half the yield, furnishing half the seeds. Crawford: from \$1 50 to \$2 an acre; on shares, one-third. Indiana: the same. Beaver: one-half the product.

What are the chief articles of production, and what are the present prices of two or three of them?

Articles of production.	Prices.	Counties.
Wheat .....per bushel..	\$1 00	Blair, Perry, Berks, Adams, Bedford.
Do.....do	1 05	Lebanon, Juniata, Bucks.
Do.....do	1 10	Lancaster, Union, Indiana, York.
Do.....do	1 15	Chester, Montour.
Do.....do	1 25	Bucks, Columbia, Cumberland, Beaver.
Do.....do	1 30	Montgomery, Lehigh, Cambria, Warren.
Do.....do	1 40	Clearfield, Adams.
Corn.....do	65	Adams.
Do.....do	75	Lancaster, Union, Perry, York.
Do.....do	80	Juniata.
Do.....do	85	Lehigh, Lebanon, Cumberland, Indiana.
Do.....do	90	Berks, Blair, Montour, Columbia.
Do.....do	1 00	Bucks, Montgomery, Carbon, Erie, Clearfield, Venango, Crawford.
Do.....do	1 10	Cambria.

Articles of production.	Prices.	Counties.
Oats per bushel..	\$0 30	Cambria.
Do.....do	40	Union, Perry, Adams.
Do.....do	42	Juniata, Cumberland, Montour.
Do.....do	45	Lebanon, York, Indiana, Cumberland.
Do.....do	40c. to 50c.	Susquehanna.
Do.....do	50	Warren, Erie, Venango, Lehigh.
Do.....do	55	Chester.
Do.....do	60	Bucks, Montgomery, Beaver.
Do.....do	70	Carbon.
Do.....do	75	Clearfield.
Potatoes .....do	50	Adams, Lehigh, Union, Crawford, Beaver.
Do.....do	60	Carbon, Montour.
Do.....do	65	Berks, Erie.
Do.....do	70	Bucks, Montgomery, Blair.
Rye .....do	80	Adams, Cumberland.
Do.....do	85	Lebanon.
Do.....do	90	Perry.
Do.....do	1 00	Berks, York, Bedford.
Do.....do	1 10	Carbon, Cambria, Beaver.
Do.....do	1 15	Lehigh.
Do.....do	1 20	Clearfield.
Coal .....per ton..	2 50	Schuylkill.
Do.....do	3 00	Luzerne.
Iron .....do	30 00	Schuylkill.
Butter .....per pound..	35	Warren.
Do.....do	40c. to 50c.	Susquehanna.
Petroleum oil ...per barrel..	5 00	Venango.

What is the distance to a market town, a railroad station, or a steamboat landing?

Bucks: the distance to Philadelphia market is 18 miles; to railroad station 12 miles; average distance to stations 3 miles. Lehigh: a ready home-market for everything; there is more consumed than produced. Montgomery: average distance to market 7 miles; railroads pass through the division. Chester: Westchester is a market town 6 miles distant from the farthest part of the division. Berks: Reading is a market town, and has two or three railroad stations. Lancaster: market towns and railroad stations within the district. Lebanon: the Lebanon Valley railroad runs through the county; we have six or seven railroad stations. Schuylkill: market town about 15 miles distant; railroad station 10 miles; no steamboat landings. Carbon: average about 5 miles. Susquehanna: to market town about 5 miles; railroad station 7 miles. Blair: 15 miles is the greatest distance. Montour: average, 3 miles. Columbia: we have a railroad at our very doors. Juniata: Pennsylvania Central Railroad runs through the county. Union: average distance 10 miles. Perry: from Bloomfield 5 miles to railroad and canal, at Newport. Cumberland: market towns are very near, and there are two railroads in the county. York: Hanover is a railroad town. Adams: three market towns, and principal railroad stations in the county. Bedford: 8 miles to railroad station. Cambria: market town and railroad station centrally situated. Warren: we are so near the oil region that every farm is a market, and a good one too; we are 6 miles from one railroad and 9 from another, both in this county. Erie: six miles from the extreme portion of the division. Clearfield: a railroad station in the center of the county. Venango: fifteen miles to the farthest point from railroad station. Crawford: not farther than 10 miles from any point *within the county*. Indiana: The Pennsylvania Railroad has a branch

to the county town, which is central. Beaver: from 1 to 10 miles; several railroad stations and steamboat landings. Luzerne: the principal trading cities for this region are New York and Philadelphia; several railroads run through Scranton, our county town.

What is the general quality of land and the kind of timber?

Bucks: loamy sand; timbered with oak, hickory, and chestnut; the land generally is in a high state of cultivation. Lehigh: most of the land consists of a rich heavy loam; a limestone country, chiefly; several townships have a gravelly soil, and are not so productive. Montgomery: land generally good; timber—white and black oak and hickory, with many other kinds. Chester: quality of land first-class; oak, hickory, and chestnut. Berks: the land is limestone, generally of excellent quality; oak, hickory, chestnut, maple, and pine. Lancaster: limestone; oak, hickory, chestnut, &c.; Lebanon: limestone and some gravel; oak and chestnut. Schuylkill: poor; pine, hemlock, and oak. Carbon: land of medium quality only; timber, principally hemlock. Susquehanna: medium quality; hemlock, maple, and beech. Blair: limestone; white and red oak, chestnut, pine, and hemlock. Wyoming: nothing can be said to encourage emigration in this direction. Columbia: along the river sandy loam and gravel; back of it red shale, &c.. Juniata: limestone land; oak, timber. Union: limestone, gravel, and some red shale, and a good deal of mountain land. Perry: limestone, red shale, gravel, and slate; white oak, hickory, chestnut, and chestnut-oak. Cumberland: limestone, gravel, and slate; oak and chestnut. York: good limestone land; white oak, chestnut, &c. Adams: ordinary quality, mostly granite and slate; chestnut, hickory, oak, maple, ash. Bedford: limestone and slate; black and white oak, chestnut, pine. Cambria: soil generally thin and cold; white pine and hemlock in abundance; oak, cherry, poplar, ash, and chestnut in fair supply. Union: the land is mostly good, and has a great variety of timber and good water. Erie: quality diversified; gravelly, sandy, clay, and loam; hickory, oak, chestnut, hemlock, beech, maple, walnut. Clearfield: the soil is light; pine, white oak, and hemlock. Venango: the land is thin and rather poor; the timber is mostly white oak and chestnut. Crawford: clay loam; oak, birch, maple, pine, and poplar. Indiana: the quality of the land is reasonably good; in the northeast part of the county the timber is white pine, in all the rest oak. Beaver: the land is generally clay, in some places sandy; timber—oak and hickory. Luzerne: land poor and stony; timber—hemlock and pine.

For what kind of labor is there a demand?

Allegheny: skilled labor for the numerous glass-works, steel-works, iron furnaces, rolling-mills, and founderies, machine-shops, and other extensive manufactories in Pittsburg and vicinity. Bucks, Lehigh, Montgomery, and Cambria: farm labor. Chester: good farm labor is at all times in demand; good mechanics also required. Berks: labor is not in demand at present; in brisk times manufactories, machine-shops, &c., employ nine-tenths of the laboring population. Lancaster: only a limited demand for ordinary farm labor. Schuylkill: miners and common laborers. Carbon and Montour: all kinds. Susquehanna and Blair: mechanics. Union: a few farm hands, and a great demand for female help. Perry, York, Adams, Juniata, Bedford, Indiana, Venango, and Beaver: no demand at present for any kind of labor. Cambria: miners, iron-workers, machinists, builders, and their unskilled auxiliaries. Warren: nearly every kind, at fair wages; ditchers and tile-makers are greatly needed. Erie: during the season of navigation there is a demand for common and farm labor. Clearfield: labor is required only

for lumbering during a part of the year. Crawford: mechanics and farm laborers. Luzerne miners, common laborers, and mechanics. Philadelphia: The following is a partial exhibit of the manufactures of the city of Philadelphia, in 1870, taken from the returns in the office of Superintendent of the Census:

Manufactures.	Number of establishments.	Capital invested.	Hands employed.			Yearly wages.	Value of products.
			Males above 16.	Females above 16.	Children and youth.		
Boots and shoes	674	\$2,274,636	4,620	1,380	215	\$2,478,082	\$7,724,809
Boot and shoe fitters	17	57,150	88	114	6	67,748	150,637
Brickmakers	80	1,814,500	2,332	.....	437	1,151,647	2,703,148
Breweries	53	3,221,450	485	4	7	327,440	4,182,050
Bakeries	391	768,075	1,091	27	86	298,081	3,004,159
Bread, cake, ice-cream, &c.	10	44,700	45	16	1	25,040	116,340
Blacksmiths	139	200,685	505	.....	8	217,664	587,776
Brass founders	23	384,750	275	.....	12	134,438	532,067
Cigars	345	986,040	1,214	160	113	524,168	2,014,058
Carriages	118	1,707,497	1,502	3	15	865,880	2,103,884
Carriages, (children's)	4	50,100	45	.....	14	32,432	83,922
Carpets	205	2,363,650	3,464	872	370	1,700,436	7,397,636
Confectionary	81	236,750	271	53	28	99,438	601,452
Cabinet-makers	138	1,767,955	1,682	18	53	1,006,120	3,004,873
Coopers	59	409,487	526	.....	5	275,273	896,284
Clothing	310	4,369,114	4,038	4,464	73	2,032,639	10,707,008
Carpenters and builders	87	1,114,500	1,337	15	18	733,863	4,180,643
Carpenters	148	353,050	658	.....	10	438,664	1,691,401
Cotton mills	21	2,682,000	1,694	1,445	469	898,062	3,476,454
Drugs and chemicals	24	2,579,560	589	111	34	384,008	3,877,180
Foundries, (iron)	71	4,240,420	2,480	.....	115	1,414,227	5,225,052
Grist mills	21	537,500	157	.....	1	107,010	4,835,533
Glass works	9	1,226,016	727	28	560	552,610	1,561,643
Hosiery	50	1,627,700	797	1,664	537	834,870	3,263,867
Jewelers	84	811,800	630	74	42	399,980	1,515,476
Machinists	90	5,107,245	3,194	5	31	1,673,711	4,603,312
Machinery and tubing	1	5,000,000	1,300	.....	.....	750,000	5,000,000
Plumbers and gas-fitters	97	293,400	478	.....	21	211,426	876,434
Printers	123	4,974,500	2,119	239	150	1,820,285	6,361,597
Paper mills	5	2,560,000	691	141	3	352,200	2,444,000
Painters	107	228,625	547	9	9	286,322	893,161
Pianos	9	493,070	278	2	3	173,250	431,800
Paints, lead, and linseed oil	13	1,466,750	326	.....	.....	181,622	3,216,410
Patent medicines	27	1,405,774	158	105	8	120,645	5,591,822
Planing mills	28	907,800	387	6	15	221,369	1,833,316
Sashes, doors, and blinds	41	829,735	537	1	17	395,594	1,451,804
Sewing machines	5	700,000	312	2	3	195,440	671,000
Soap and candles	34	727,600	329	31	32	199,920	1,676,381
Sugar refineries	11	3,494,000	892	.....	1	373,308	19,581,374
Tinsmiths	130	598,750	545	53	51	237,671	930,755
Woolen mills	54	7,149,000	1,903	3,183	724	1,793,163	11,204,802
Yarns	44	2,255,000	779	681	475	636,084	4,952,904
Total of above and all others	6,090	205,564,238	88,631	23,545	7,356	52,236,026	251,603,921

What mills or factories, if any, are in operation or in progress requiring skilled labor?

Bucks: flour-mills, one cotton-mill, one paper-mill, also an iron furnace. Lehigh: the principal manufacturing establishments are blast-furnaces for the production of pig-iron, besides rolling-mills, spike-furnaces, &c. Montgomery: none of importance. Chester: three cotton and paper mills, agricultural-implement factories, woolen factories, rolling-mill, &c. Berks: thirty-two cotton-mills, twelve hat factories, two machine-shops, three furnaces, three rolling-mills, two woolen-mills, four foundries, eight or ten machine-shops, two forges, &c., &c. Lancaster:

agricultural-implement factory, founderies, machine-shops, flour-mills, furnaces, and rolling-mills. Schuylkill: rolling-mills and furnaces. Carbon: machine-shops, car-shops, grist and saw mills, &c. Susquehanna: tanneries and saw-mills. Blair: paper-mills, rolling-mills, woolen factories, furnaces and machine-shops, flour-mills, &c. Montour: rolling-mills, blast-furnaces, planing-mills, founderies, machine-shops, &c. Wyoming: no special demand for skilled workmen. Columbia: planing-mills and machine-shops. Juniata: none but small tanneries and woolen factories. Union: one woolen factory, one anthracite furnace, two agricultural-implement manufactories. Perry: machine-shops for agricultural implements, founderies, planing-mills, rolling-mills, &c. Cumberland: paper-mills, founderies, forges, and furnaces. York: none. Adams: two woolen factories, one paper-mill. Bedford: none. Cambria: West Cambria Iron Works, about three thousand operatives; the Johnstown Mechanical Works, Woodvale woolen-mills, steam brick-factory, hydraulic-cement and fire-brick manufactory, and other small shops. Erie: one smelting or blast furnace, one furnace for car-wheels, two stove founderies, a number of other furnaces and machine-shops, and a large number of small manufactories of different kinds. Clearfield: three planing-mills, two founderies, and one gang saw-mill. Crawford: woolen-mills and agricultural-implement factories. Indiana: planing-mills, founderies, paper-mills. Beaver: one wire and rivet factory, one large cutlery factory, one file factory, one glass-works, one shovel factory, eight founderies, two woolen-mills, six planing-mills, two agricultural-implement factories. Luzerne: two rolling-mills, five large machine-shops, three boiler-shops, five large car-shops, three stove founderies, &c.

Are there in your vicinity any railroads or other public works in progress, requiring common labor; if so, how far distant?

Bucks: a railroad in progress; will pass through this division. Lehigh: one railroad under way; will run through the southern portion of the county. Montgomery: a railroad in progress, passing through this division. Chester: one railroad, within three miles, in course of construction, and two short railroads projected and surveyed. Berks: a railroad, nine miles distant, in course of construction. Lancaster: one in division four. Lebanon: one in progress, nearly finished. Carbon: various kinds of public works in progress, five miles distant. Susquehanna: one about 14 miles distant. Blair: one 8 or 10 miles distant. Montour: the Danville, Hazleton, and Wilkesbarre Railroad, 60 or 70 miles. Cumberland: two railroads in the county. Bedford: the Connellysville Railroad, 20 miles distant. Cambria: the Connellysville Railroad. Venango: one railroad in progress, but it is well supplied with men.

If many foreign-born workmen are employed in your district, please give the preponderating nationality.

Bucks: but few; they are German and Irish. Lehigh: miners of iron-ore and limestone, Irish and German; slate-quarriers, Welsh. Montgomery: German and Irish about equal. Berks: Irish and German. Lancaster: German. Lebanon: mostly American-born. Schuylkill: Irish, Welsh, and German. Carbon: Irish. Susquehanna: about one-third of our farmers are of foreign birth. Blair: Irish. Montour: Irish. Wyoming: Irish, ten to one. Juniata: a few Germans and Irish. Union: Welsh, furnace employés, a few. Perry: but few workmen of foreign birth are to be found in this county. Cumberland: there are not many foreigners employed. York: none. Adams: German. Bedford: Irish. Cambria: German, Irish, Welsh, and English in large numbers, in the order named. Warren: Swedes and Irish.

Erie: German and Irish. Clearfield: a few Canadian French. Venango: Irish. Crawford: Irish. Indiana: German. Beaver: Irish and German about equal. Luzerne: Irish, one-half; Welsh, one-fifth; English and Scotch, one-tenth; German, one-fifth.

Please state any advantages which your district can offer to laborers, mechanics, or small farmers. Is there much land of good quality and well watered yet unoccupied?

Bucks: well supplied with mechanics and laborers; small farmers will find good land, good society, healthful locality, and proximity to market. Lehigh: plenty of employment for common and mechanical labor, healthful climate and good wages; the land is all taken up, therefore no opportunities for farmers are presented. Montgomery: settled many years; no special advantages to offer; laborers and mechanics can always find work; all may succeed by industry and economy; land all occupied. Chester: laborers and mechanics always in demand at good wages; markets good and well supplied; no land unoccupied. Berks: no tillable land unoccupied, and the supply of laborers of all kinds greater than the demand. Schuylkill: good advantages offered to miners, laborers, and mechanics; no land, of good quality, unoccupied. Carbon: wages for laborers and mechanics generally good; several thousand acres of land well watered, yet unoccupied; quality only middling. Susquehanna: yes. Blair: no special advantages; a great deal of mountain land, of inferior quality, unoccupied. Wyoming: good land mostly taken up. Columbia: a better market generally than New York for produce right at home, and 16 miles distant in the coal region. Juniata: no land unoccupied; supply of labor sufficient. Union: no land of good quality unoccupied; abundance of water-power in this valley, and the advantage of cheap necessities of life. Perry: no particular advantages, except the cheapness of living and the cheapness of land, both improved and unimproved. Cumberland: labor is plenty, and the land all occupied. York: none. Adams: the same. Bedford: the only land unoccupied is mountainous. Cambria: many of our best farmers are selling their lands for their mineral value, and removing to the West. Warren: good soil, healthy climate, good markets, good schools, &c. Erie: a good market for garden products. Clearfield: none except during the lumbering season; much good land well watered yet unoccupied. Venango: this being the oil-producing district, a great deal of labor is required; there is considerable well-watered land unoccupied, but of poor quality. Crawford: not much. Indiana: lands generally occupied. Beaver: supply of labor ample; very little good land unoccupied. Luzerne: mechanics and laborers have constant employment in this district.

What is the price of farm stock, sound and in good condition?

District.	County.	Working oxen, per pair.	Working horses, each.	Working mules, each.	Milch cows, each.	Sheep, each.	Hogs, per pound.
5	Bucks	\$180	\$175	\$225	\$75	\$6	-----
6	Lehigh		200	250	65	3½	*\$15 00
6	Montgomery	300	\$200 to 250	175	75	6	-----
6	Lehigh †		225	150	75	7	-----
7	Chester	200	250	200	\$80 to 140	\$5 to 10	15c.
8	Berks	100	125	150	40	5	14c.
10	Lebanon		150 to 250	\$125 to 175	25 to 75	2 to 4	-----
10	Schuylkill		150	200	50	5	-----
11	Carbon	200	150	160	60	4	10c.
12	Susquehanna	\$200 to 240	150 to 200	200	35 to 45	2½ to 3	12c.
13	Wyoming	150 to 200	150 to 200		30 to 50	2	10c.
13	Montour		175 to 225	175 to 200	45 to 50	5	10 to 12c.
13	Columbia		200	150	50 to 60	5	-----
14	Juniata	100	140	125	35	3	12c.
14	Union		150	150 to 170	50	2 to 5	10c.
15	Cumberland		150	175	40	5	09c.
16	Adams		90	125	50	4	10c.
16	Bedford	80	125	125	40	2½	10c.
17	Blair	150 to 200	125 to 200	125 to 175	30 to 60	2½ to 3	07c.
17	Cambria	75 to 125	150 to 200	150 to 200	30 to 50	3 to 5	*\$15 00
19	Clearfield	120	120	100	35	1½	05c.
19	Warren	150	125	125	55	3	10c.
20	Venango	150	150 to 200		45 to 65	1½ to 2½	7 to 8c.
21	Indiana	170 to 190	125 to 175	125 to 175	30 to 55	1½ to 3½	8 to 10c.
24	Beaver	100 to 150	150 to 200	175 to 250	50 to 75	2 to 12	08c.
	Average.....	\$167 61	\$167 48	\$166 07	\$51 48	\$4 04	10c.

* Each.

† Second return.

MARYLAND.

Area, 7,119,360 acres. Population in 1870, 780,894.

Can land be purchased or rented in your district suitable for small farms on favorable terms?

* Kent, Talbot, Alleghany, Washington, Montgomery, Calvert, Anne Arundel, Prince George, Charles, St. Mary's, Queen Anne, Howard, Baltimore, and Worcester: land can be purchased or rented on favorable terms. Cecil: there is but little land for sale that could be parceled out in small farms. Dorchester: lands are held too high.

What is the price per acre of small improved farms? State what proportion has been under cultivation, how much is fenced, and the kind of buildings.

Dorchester: average \$15 to \$25 per acre; one-half under cultivation and fenced; wooden buildings. Kent: the price is about \$65 per acre; nearly all of it arable land, fenced, and with tolerably good buildings. Talbot: from \$5 to \$40 per acre, depending upon location, quality of soil, and description of buildings. The cleared land is under fence and in cultivation, and usually from one-quarter to one-half the tract is in timber; buildings common, one-story and attic. Alleghany: from \$30 to \$40 per acre; about two-thirds cleared, generally all fenced; frame and log buildings. Washington: from \$90 to \$110 per acre; about three-quarters under cultivation, all under fence, and buildings generally good, of log, stone, or brick. Montgomery: from \$10 to \$30 per acre; one-half under cultivation; fencing generally good. Calvert: without buildings land can be had for about \$10 or \$15 per acre, with buildings from \$20 to \$25 per acre; generally all fenced with chestnut

* Names of counties from which returns have been received.

rails. Anne Arundel: from \$25 to \$40 per acre; about two-thirds under cultivation; generally fenced; frame buildings. Worcester: from \$20 to \$30 per acre; about one-half under cultivation and fenced; ordinary frame buildings. Prince George: from \$10 to \$40 per acre according to location and improvements—the average may be stated at \$30; most of the small farms have very good buildings; about three-fourths arable, remainder in wood; the fencing is generally good. Queen Anne: from \$30 to \$70 per acre; about three-quarters arable; all of which is under cultivation in alternate years. Fencing good; dwellings mostly two-story frame. Charles and St. Mary's: from \$25 to \$50; about three-fourths cultivated; all fenced; wooden frame buildings. Baltimore County (outside of the city:) from \$80 to \$300 per acre; about three-quarters of it under cultivation; mostly all fenced; buildings plain and comfortable. Howard: from \$10 to \$100 per acre, depending on location, quality of soil, degree of improvement, and nearness to market; about two-thirds under cultivation; buildings of brick, stone, and wood, and all varieties of style and sizes. Cecil: from \$40 to \$125 per acre; two-thirds under cultivation and fenced; buildings substantial and good.

What is the price per acre of unimproved land, what proportion is cleared, and how much, if any, is fenced?

Kent: about \$25 per acre; nearly all cleared and indifferently fenced. Alleghany: from \$3 to \$30 per acre; none cleared. Coal region will range from \$400 to \$1,000 per acre. Washington: from \$50 to \$60 per acre. Montgomery: from \$10 to \$20 per acre; lands that have been cleared and cultivated once, but are now grown up with pines are worth about \$10. Calvert: from \$5 to \$10 per acre; about one-half cleared. Anne Arundel: all farms are improved. Prince George: improved lands have become greatly reduced in value in consequence of the abolition of slavery, and the complications incident thereto. The farms on the Patuxent slope, constituting what is known as the forest of Prince George, may be purchased now at an average of \$30 per acre either in large or small tracts. Queen Anne: from \$15 to \$60 per acre; at least five-sixths of it under cultivation and fenced. Charles and St. Mary's: from \$25 to \$50 per acre; about two-thirds under cultivation and fenced. Baltimore: land varies from \$80 to \$1,000 per acre in proportion as it is contiguous to the city of Baltimore or any of the thoroughfares leading thereto; about three-fourths under cultivation and generally all fenced. Howard: from \$20 to \$100 per acre; all improved land; is under cultivation and fenced. Cecil: from \$60 to \$150 per acre; three-fourths cultivated and fenced.

What is the yearly rent of small improved farms? If rented on shares, what share does the owner receive? Does the latter provide stock, implements, or seeds?

Dorchester: from one-third to one-half the crop; the tenant provides everything. Kent: on shares, generally for one-half; the tenant furnishing stock and implements and half of the seeds. Talbot: from one-third to one-half the grain crop is the usual rent. The landlord provides no stock, implements, or seeds, except clover. Alleghany: one-third of all the crops raised. The owner does not provide stock, implements, or seeds. Washington: farms are nearly all rented upon shares, the renter furnishing all stock, implements, and seeds; the owner receiving one-half of the crop. In a few cases the owner furnishes seeds, implements, and stock, and receives two-thirds of the crop. Montgomery: on shares; the owner, furnishing implements and stock, receives one-half the crop; other-

wise, one-third. Calvert: the same as above. Anne Arundel: the same. Worcester: one-half of the corn and one-third of the fodder and small grains raised constitute the rent, the owner furnishing nothing but fertilizers. Prince George: small improved farms are seldom rented, but large ones may be had very low. Farms of 300 acres may be rented for \$1,000 or \$1,200; or they will be let on shares, the owner receiving one-third of their net product; the renter furnishing seeds, stock, &c. Persons holding large tracts do not object to dividing and leasing in small parcels. Many of the large land-holders are building small houses on their lands as inducements to men of small means to cultivate them. Some farmers will furnish seeds and fertilizers, but few are willing to grant the use of their stock. Men with a few hundred dollars capital can get good bargains. Queen Anne: land is generally rented on shares, the owner receiving one-half the corn and one-third of the wheat.

Charles and St. Mary's: when owner provides nothing, one-third; when he provides stock and implements he receives one-half. Baltimore: land is generally rented on shares, the owner receiving one-half the product, the renter furnishing his own stock, seeds, and implements. Howard: generally on shares; the owner provides nothing and receives one-third of the crop. Cecil: farms are usually rented on shares, upon varying terms as above.

What are the chief articles of production, and what are the present prices of two or three of them?

Articles of production.	Prices.	Counties.
Wheat.....per bushel..	\$1 20	Washington.
Do.....do.....	\$1 10 to 1 35	Talbot.
Do.....do.....	1 20 to 1 35	Montgomery.
Do.....do.....	1 30	Charles, St. Mary's.
Do.....do.....	1 30 to 1 50	Calvert, Anne Arundel.
Do.....do.....	1 40	Baltimore, Dorchester.
Do.....do.....	1 50	Kent, Alleghany, Worcester.
Do.....do.....	1 60	Cecil.
Corn.....do.....	70	Worcester.
Do.....do.....	70 to 75	Washington.
Do.....do.....	65 to 70	Talbot.
Do.....do.....	78	Cecil.
Do.....do.....	80	Dorchester, Kent, Baltimore, Charles, St. Mary's.
Do.....do.....	80 to 1 00	Anne Arundel.
Do.....do.....	90	Montgomery.
Do.....do.....	1 00	Calvert.
Do.....do.....	1 20	Alleghany.
Oats.....do.....	40	Worcester.
Do.....do.....	45	Washington.
Do.....do.....	50	Dorchester, Baltimore.
Do.....do.....	56	Cecil.
Do.....do.....	60	Kent, Alleghany.
Potatoes.....do.....	45	Talbot.
Do.....do.....	50	Montgomery.
Do.....do.....	1 00	Alleghany.
Hay.....per ton....	20 00	Talbot.
Do.....do.....	16 00	Montgomery.
Do.....do.....	12 00	Alleghany.
Peaches.....per bushel..	1 00	Kent.

In Howard and Prince George counties the prices are regulated by the Baltimore market.

What is the distance to a market town, railroad station, or a steamboat landing?

Dorchester: we have steamboat and railroad communication from this place. Kent: from 1 to 4 miles. Talbot: there are about twenty steamboat landings in this division, no farm in Talbot County being more than 5 miles from one of them; Easton is the county town, and Baltimore the principal market; railroad communication twice each day between Easton and Philadelphia and Baltimore. Alleghany: Cumberland is the chief market, and is situated in the center of the county; the Baltimore and Ohio Railroad passes directly through the city and through the entire county; Cumberland is the terminus of the Chesapeake and Ohio Canal, Cumberland and Pennsylvania Railroad, Pittsburgh and Connellsville Railroad, Baltimore Turnpike, and National Road direct from Wheeling, West Virginia. Washington: ten miles is the greatest distance from any part of the county to a railroad station or canal; the Baltimore and Ohio, and Cumberland Valley Railroads, and the Chesapeake and Ohio Canal traverse the county. Montgomery: to Washington City 18 miles; railroad station at Laurel, 8 to 20 miles. Calvert: there is no point in the county more than 5 miles distant from a landing; we have no railroads or market town. Anne Arundel: we are very favorably situated as to railroad and water communication, and convenient market. Worcester: we have all these within 8 miles of all farming lands in this county. Prince George: the same as above. Queen Anne: there is no farm in the county over 10 miles from steamboat landing and railroad station. Charles and St. Mary's: from 1 to 10 miles from steamboat landings. Baltimore: Baltimore City is the principal market town, furthest point distant 24 miles; several stations of the Northern Central and Western Maryland Railroads are within this division. Howard: the Baltimore and Ohio Railroad passes through this county, having various stations within it. Cecil: the Philadelphia, Wilmington and Baltimore Railroad runs through the center of the county, having five stations within the county; the Philadelphia Central through the northwestern part, five stations; Chesapeake and Delaware Canal runs through the southern part of the county, two landings; the Susquehanna, Elk, North-East, Bohemia, and Sasafra Rivers afford numerous points of shipment; the Delaware Railroad is used by the southeastern part of the county; average not above 3 miles to a place of shipment.

What is the general quality of land, and the kind of timber?

Dorchester: about one-half sandy loam and the other half stiff clay; oak and pine timber. Kent: the soil is of medium quality, generally good; the timber is oak, pine, and hickory. Talbot: the quality of land varies; white clay and loam, with red clay subsoil, black loam and sandy; oak and pine timber and some hickory. Alleghany: limestone and slate; mountain land rocky and gravelly; pine, oak, walnut, and poplar. Washington: limestone land, and very productive in the valley lying between the Blue Ridge on the east and the North Mountain on the west; west of North Mountain the land is slate and not so productive. Montgomery: clay loam, very thin, much of it exhausted from corn and tobacco planting, before the introduction of guano and other fertilizers. Calvert: the land is light loam generally, but there are a variety of soils; the timber is oak, chestnut, poplar, and pine. Anne Arundel: the land is generally good; oak, hickory, pine, and chestnut. Worcester: the land is light, with red clay subsoil, with oak and gum swamp lands in less abundance; pine, oak, gum, hickory, and cypress. Prince George: this county is situated between the Patuxent and Po-

tomac Rivers; the lands forming what is known as the "Ridge" are alternately poor, stiff soil, gravel and sand; much of this, however, is covered with well-grown oak timber, and a good part with useless pine. The land falling toward the Patuxent is generally light marl; soil very strong and fertile, most of it arable, remainder in heavy timber, white oak, poplar, walnut, &c.; lies well for cultivation, with an abundance of fine springs of water; the western, or Potomac slope, is alternately clay, gravel, and dark loam; the latter having been, within a few years past, very remunerative; plenty of oak and pine wood. Queen Anne: the northeastern part of the county is of light soil; the soil generally is of dark loam, and easily improved; the timber consists of red oak, white oak, hickory, poplar, and ash. Charles and St. Mary's: some poor and some fertile; clay, loam, and sand; oak, chestnut, and pine. Baltimore: the quality of land is various; limestone, granite, heavy clay, and loam; timber—oak, chestnut, and hickory. Howard: good soil; timber, oak, hickory, and chestnut. Cecil: the quality of the land is good; in some portions of the county excellent; hickory, oak, ash, walnut, poplar, beech, locust, chestnut, and cedar.

For what kind of labor is there a demand?

Baltimore: skilled labor, to some extent, in the various extensive manufactories of Baltimore City. Kent: white labor. Talbot: farm and mechanical. Alleghany: miners, mechanics, and common laborers. Washington: the supply is more than equal to the demand. Montgomery: farm labor is abundant; a few mechanics would find plenty of employment, such as tailors, shoemakers, masons, &c., and house servants. Calvert: all kinds of labor wanted, farm labor particularly. Anne Arundel: farm labor especially. Worcester: farm labor. Prince George: farm labor, almost exclusively. Queen Anne: farm laborers and house servants, particularly cooks. Charles and St. Mary's: farm labor. Baltimore: house servants. Howard: there is a demand for labor of all kinds. Cecil: generally, the supply is equal to the demand.

What mills or factories, if any, are in operation, or in progress, requiring skilled labor?

Kent and Talbot: none. Montgomery: none of any consequence; there are three or four grist and saw mills driven by steam in the county, and quite a large number by water. Alleghany: steam saw and planing mills, boat-yards, nine large tanneries, steam cabinet and furniture factories, cement-mills, rolling-mills, blast-furnaces, machine-shops, and steam flour-mills. Washington: paper mills or factories, and machine-shops for manufacturing agricultural implements. Calvert: none other than the common water and wind mills for the purpose of grinding corn. Anne Arundel: sash and blind factory, pickling factory. Worcester: steam saw and grist mills. Prince George: few mills, except ordinary grist-mills, of which there are quite a number throughout the county; six or eight steam saw-mills of small capacity; one large flour-mill of about one hundred barrels capacity per day, not running for want of capital. Queen Anne: seven grist-mills, two saw-mills, one large woolen factory, with numerous wheelwright and carriage factories. Charles and St. Mary's: steam and water grist and saw mills. Baltimore: two cotton factories, one woolen factory, one machine-shop for building engines and railroad cars, one iron furnace, two tanneries, one iron foundry, and fourteen grist-mills. Howard: there are thirteen large flour-mills, seven cotton factories, three woolen-mills, and two curled-hair factories, employing a large number of workmen. Cecil: rolling-mills, paper-mills, cotton factories, furnaces, planing-mills, &c.

Are there in your vicinity any railroads or other public works in progress requiring common labor? If so, how far distant?

Kent: one railroad in progress about 8 miles distant. Talbot: one through the center of Talbot and a portion of Caroline Counties. Alleghany: Pittsburg and Connellsville Railroad now under construction; Chesapeake and Ohio Canal wharf, with a large rolling-mill capable of employing two thousand laborers. Washington: extension of Cumberland Valley Railroad to Potomac River runs through Hagerstown and the center of the county. Montgomery: there is one railroad being constructed across the county, passing about 8 miles from Sandy Spring. Calvert, Anne Arundel, and Worcester: there are none in this immediate vicinity. Prince George: the Baltimore and Potomac Railroad is in process of construction, but is well supplied with labor, as the wages have attracted many hands from the adjoining farms; this road, it is said, will shortly give employment to many skilled laborers, as the construction and repair shops will be located at Huntington, about 16 miles from Washington City. Queen Anne: there is one railroad under construction, which will run from the northeastern end of the county to Centreville, the shire town, a distance of 21 miles. Charles and St. Mary's: in the upper part of Charles County the Baltimore and Potomac Railroad. Howard: Baltimore and Potomac Railroad. Cecil: Port Deposit and Columbia Railroad on the east bank of the Susquehanna River; fully supplied with labor.

If many foreign-born workmen are employed in your district, please give the preponderating nationality.

Kent: very few, mostly Irish. Talbot: the same. Alleghany: English, Germans, Scotch, and Irish. Washington: Irish and Germans. Montgomery: nearly all of African descent; a very few Irish and Germans scattered through the county. Calvert: there are but few foreign-born laborers; the most of them are Germans. Anne Arundel: very few foreign-born, mostly Irish and Germans. Worcester: scarcely any of foreign birth. Prince George: quite a large number, the Germans preponderating. Queen Anne: but few foreign-born, a majority of whom are Irishmen. Charles and St. Mary's: only a few foreign-born; they are principally Germans. Baltimore: Irish and Germans. Howard: Germans. Cecil: the Irish preponderate.

Please state any advantages which your district can offer to laborers, mechanics, or small farmers. Is there much land, of good quality, and well watered, yet unoccupied?

Kent: there is no place that offers better advantages to laborers, mechanics, or small farmers; there is not much land unoccupied, but the farms are large, and might advantageously be divided. Talbot: there is plenty of land belonging to large tracts that can be purchased at moderate prices, ranging from \$10 to \$60 per acre, according to quality and location; average, about \$30. Alleghany: inducements for common laborers and mechanics very good; for small farmers tolerably good; very little land unoccupied except glade land. Washington: in the western part of the county there are unimproved lands with thin soil, some of which can be bought as low as \$5 per acre, and would grow fruits profitably. Montgomery: there is much land uncultivated and well watered, but of poor quality; the climate is healthy; we are from 400 to 600 feet above tide-water. Calvert: the lands have been all once occupied, but there is not sufficient labor now to properly cultivate them; our land is naturally of good quality, but has suffered from neglect; the entire county is well watered. Anne Arundel: advantages are offered to laborers and small farmers; the farms are gen-

erally well improved and conveniently situated in regard to both water and railroad communication with market; many of the holders are anxious to rent their farms. Worcester: our vicinity seems admirably adapted to fruit and truck farming, and is of easy access to market; the waters have abundance of oysters;* the land is sparsely occupied, and there is much land that could be advantageously worked; there is no scarcity of water, and there is much wood and timber that can be profitably marketed. Prince George: the land near the bay is well adapted to the growth of fruit, and peach farms are very remunerative; the farms are contiguous to steamboat landings both on the river and bay; land can be purchased at a moderate price; to men of small means who are willing to work, Prince George County offers many inducements; much good land is lying idle for want of thrift and a little money. Queen Anne: unskilled white laborers can always find employment; small farmers can obtain lands on favorable terms; there are many advantages presented to capital, labor, and enterprise; there is good water-power, and timber is abundant. Charles and St. Mary's: there is a great deal of good land uncultivated, which would give employment to large numbers of agricultural laborers. Baltimore and Howard: small farmers can obtain plenty of land of good quality, and well watered, on reasonable terms. Cecil: we have advantages of railroad and water communication perhaps unsurpassed; schools, churches, salubrity of climate, and productiveness of soil rarely equaled.

What are the prices of ordinary farm stock, sound and in good condition?

County.	Working oxen, per pair.	Working horses, each.	Working mules, each.	Milch cows, each.	Sheep, each.	Hogs, each.
Kent	\$150	\$125	\$125	\$50	\$6	†10c.
Talbot	\$80 to 120	\$75 to 150	\$100 to 150	\$25 to 60	\$4 to 6	†7c. to 10c.
Alleghany	150	150	175	50	3	\$10
Washington	150 to 200	100 to 250	30 to 50	2 to 5		†8c.
Calvert	80 to 100	125	150	25 to 30	4 to 6	\$2 to 10
Anne Arundel	50 to 75	130	150	25 to 50	3 to 6	†10c.
Worcester	50 to 100	150 to 300	150	20 to 64	2½ to 3	†8c.
Dorchester	80	250	125	40	5	\$12
Prince George	125	100	125	80		
Montgomery	175	150	175	50	3	†10c.
Queen Anne	100	100	125	35	5	\$6 to 10
Charles and St. Mary's	100	125	150	40	4	†5c.
Baltimore	150 to 200	175 to 200	200		3 to 4	†10c.
Howard	200	100 to 150	150 to 200	50 to 100	3 to 6	†6 to 8c.
Cecil	150 to 275	150 to 200	175 to 250	60 to 90	6 to 7	\$12
Average	\$127 50	\$150 50	\$157 00	\$46 00	\$4 40	†8c.

* The extent of the oyster beds of Maryland is about three hundred and seventy-three square miles, which, under the administration of proper laws, would give employment to twenty thousand laborers in a few years. Besides the six hundred dredging vessels licensed, averaging twenty-three tons each, there are also two thousand canoes, which, on an average, take daily about five bushels each, by tongs, for seven months in the year. This fleet in 1869, employed 6,885 men, independent of those engaged in the carrying trade, which would probably swell the number to between nine and ten thousand hands employed afloat in the oyster business. The annual product is not less than 10,000,000 bushels, worth at first hands \$5,000,000.—(*Report of Agricultural Department, 1869.*)

† Per pound.

WEST VIRGINIA.

Area, 13,025,280 acres. Population in 1870, 442,033.

Can land be purchased or rented in your district, suitable for small farms, on favorable terms?

*Harrison, Ohio, Calhoun, Roane, Lewis, Gilmer, and Wood: it can. Pleasants: can be purchased unimproved. Pendleton: land can be purchased; there is not much for rent. Monongalia, Barbour, Hardy, Mineral, Upshur, Randolph, Preston, Taylor, Jefferson, Monroe, Ritchie, Boone, Fayette, Raleigh, Jackson, Kanawha, and Cabell: yes.

What is the price per acre of small improved farms? State what proportion has been under cultivation, how much is fenced, and the kind of buildings.

Harrison: from \$20 to \$40 per acre, with fair improvements. Ohio: small improved farms are worth \$150 per acre; about four-fifths under cultivation, nine-tenths fenced, buildings good, of wood or brick; every farm of 200 acres contains good clay for making brick; lime and sandstone abound. Monroe: from \$10 to \$50. Calhoun, and Roane: from \$6 to \$10; from one-fourth to one-third under cultivation and fenced; buildings generally of inferior character, usually log. Lewis: from \$5 to \$50; about one third under cultivation, and at least one-half under fence; buildings of medium quality. Wood: from \$5 to \$50 per acre; about two-fifths under cultivation and well fenced; buildings only ordinary. Pendleton: from \$8 to \$75 per acre; the proportion of tillable to wild lands in this county is about one to twenty-five; county rough and devoted to grazing. Monongalia: from \$5 to \$40 per acre; about two-thirds fenced; buildings of log or frame. Barbour: well improved farms in the best sections sell for \$40 per acre; the less eligible from \$5 to \$20; one-third to three-fourths under cultivation and fence; buildings moderately good. Hardy: the quality varies so much that it is difficult to make an average: sells at \$5, \$10, \$15, \$20, and upward per acre for the river bottoms; farms can be had of almost any size, some with valuable buildings and many with ordinary buildings, or none. Mineral: average, \$30 per acre; one-third under cultivation, about the same under fence; generally frame buildings. Upshur and Randolph: small farms can be purchased at from \$10 to \$12 per acre; from one-fourth to one-third fenced, and under cultivation; buildings of logs. Preston and Taylor: from \$10 to \$20 per acre; about one-third of same under fence; buildings generally of wood, and not of good quality. Jefferson: the price per acre of small improved farms is from \$50 to \$100; about three-fourths under cultivation, all fenced; buildings log and frame, and in bad repair. Ritchie: about \$10 per acre; from one-fourth to one-half under cultivation, with ordinary buildings. Boone: \$5 per acre; one-tenth fenced and under cultivation; wooden buildings. Fayette; Raleigh: rough log buildings chiefly. Jackson: from \$5 to \$15 per acre, with from 20 to 100 acres cleared and under cultivation, some with log buildings, and some with frame buildings. Kanawha: from \$25 to \$100 per acre. Cabell: from \$5 to \$30 per acre; the larger portion unimproved.

What is the price per acre of unimproved land, what proportion is cleared, and how much, if any, is fenced?

Harrison: from \$5 to \$20 per acre. Ohio: none for sale; the unimproved land belongs to and forms a part of the improved farms, the

* Names of counties from which returns have been received.

timber being preserved on account of its value; three-fourths of the timber land is fenced. Monroe: from \$5 to \$15. Calhoun and Roane: from \$3 to \$5 per acre; proportion of cleared land very small, with a few acres fenced. Lewis and Gilmer: from \$2 to \$10. Wood: from \$2 to \$10, mostly timbered, and not generally fenced. Pleasants: from \$3 to \$10. Pendleton: from 25 cents to \$10 per acre, according to location and quality. Monongalia: from \$1 to \$20 per acre, none cleared or fenced. Barbour: from \$3 to \$6; but little cleared. Hardy: the greater part is mountainous, and can be purchased at from 50 cents to \$5 per acre. Mineral: \$8 to \$10; one-fourth cleared and fenced. Upshur and Randolph: from 12½ cents to \$10; all mountain lands. Preston: from \$1 to \$6. Taylor: about \$6 per acre; but little under fence. Jefferson: from \$20 to \$30, the most of it cleared and fenced. Ritchie: from \$2 to \$8, little cleared. Boone: about \$2, neither cleared nor fenced. Fayette and Raleigh: about \$2 50. Jackson: from \$2 to \$5. Kanawha: from \$5 to \$15, not cleared nor fenced. Cabell: from \$2 to \$25, according to location.

What is the yearly rent of small improved farms? If rented on shares, what share does the owner receive? Does the latter provide stock, implements, or seeds?

Harrison: from \$3 to \$5 per acre; when rented on shares, the owner receives from one-third to one-half the grain, in gross. Ohio: \$5 per acre is the lowest rent for grazing and tilling; near the city of Wheeling \$15 to \$30 per acre is paid for garden purposes; on shares one-half the product is paid, the tenant finding teams, seeds, implements, &c.; when these are provided by the owner he receives two-thirds. Monroe: owner receives one-third and furnishes nothing but the land. Calhoun and Roane: a farm of 50 or 60 acres rents for about \$35 per annum; if rented on shares, the owner receives one-third; if he provide stock, implements, and seeds, he receives one-half. Lewis and Gilmer: \$50; on shares from one-third to one-half the product, according as the one or the other furnishes stock, &c. Wood: but few rented farms in this county; owner receives one-third. Pleasants: owner receives one-third. Pendleton: from \$5 to \$12; on shares, one-half without furnishing stock, &c. Monongalia: one-third of crops. Barbour: from \$50 to \$100; if on shares, from one-third to one-half, according as the one or the other party furnishes stock, &c. Hardy and Mineral: one-third of grain, hay, and fruits; renter furnishing seed. Upshur and Randolph: from \$30 to \$50; from one-third to one-half. Preston and Taylor: the owner receives one-third; does not furnish stock, &c. Jefferson: from \$2 to \$3 per acre; on shares two-fifths of the crop; tenant provides all. Ritchie: one-half; owner finding seeds, &c. Boone: if stock, &c., furnished by owner, one-half; if not, one-third. Fayette and Randolph: one-third of crop, furnishing nothing. Jackson: from \$50 to \$150 per year; owner receives one-third, and if he furnishes stock, &c., one-half. Kanawha: same as above. Cabell: the same.

What are the chief articles of production, and what are the present prices of two or three of them?

Articles of production.	Prices.	Counties.
Wheat..... per bushel..	\$0 80 to \$1 00	Hardy.
Do..... do.....	1 00	Calhoun, Roane, Pendleton, Monongalia, Jackson.
Do..... do.....	1 20	Harrison, Mineral, Cabell.
Do..... do.....	1 25	Ohio, Lewis, Gilmer, Pleasants.
Do..... do.....	1 00	Jefferson, Fayette, Raleigh.
Do..... do.....	1 25 to 1 50	Ritchie.
Do..... do.....	1 50	Upshur, Randolph, Preston, Taylor, Boone, Fayette, Raleigh.
Corn..... do.....	50	Wood, Kanawha, Fayette, Raleigh.
Do..... do.....	60	Calhoun, Roane, Pleasants, Jackson.
Do..... do.....	65	Ohio, Lewis, Gilmer.
Do..... do.....	75	Harrison, Monongalia, Boone.
Do..... do.....	80	Upshur, Randolph, Jefferson.
Do..... do.....	80 to 1 00	Hardy, Cabell.
Do..... do.....	1 00	Pendleton.
Rye..... do.....	70	Lewis, Gilmer.
Do..... do.....	75	Jackson.
Do..... do.....	1 00	Harrison, Mineral, Preston, Taylor, Cabell
Oats..... do.....	35 to 40	Calhoun, Roane.
Do..... do.....	40	Ohio, Pleasants, Monongalia.
Do..... do.....	33	Fayette, Raleigh.
Do..... do.....	45	Jackson, Lewis, Gilmer.
Do..... do.....	50	Harrison, Upshur, Randolph, Cabell, Preston, Taylor, Boone.
Potatoes..... do.....	30	Pleasants.
Do..... do.....	35	Wood.
Do..... do.....	1 00	Cabell.
Do..... do.....	75	Lewis, Gilmer, Monongalia, Jefferson.
Salt..... do.....	25	Kanawha.

Petroleum is an article of extensive commerce in Wood County. Tobacco is grown in Harrison, Calhoun, Roane, Lewis, Gilmer, Ritchie, Jackson, Kanawha, and Cabell Counties.

What is the distance to a market town, a railroad station, or a steamboat landing?

Harrison: railroad passing nearly through the center of the county. Ohio: several railroads connect in Wheeling in this county. Monroe: twenty miles to railroad. Calhoun and Roane: the county seat, Spencer, is centrally located; railroad station 40 miles; Ohio River 33 miles. Lewis and Gilmer: twenty-three miles to nearest railroad station. Wood: Parkersburg, a city of 8,000 inhabitants, furnishes market for a radius of 5 to 8 miles, and a railroad runs through the center of the county. Pendleton: from Franklin to Harrisonburg, Virginia, 40 miles, on Manassas road. Monongalia: 19 miles to a railroad station; 12 miles to a steamboat landing. Barbour: from county seat to railroad, 12 miles to 25 miles. Hardy: about 40 miles to Baltimore and Ohio Railroad. Mineral: Baltimore and Ohio Railroad runs through the county; best markets, Baltimore and Wheeling. Upshur and Randolph: home market. Buchanan and Beverly; railroad station, 28 miles. Preston: railroad passes directly through the county a distance of 30 miles. Jefferson: from 1 to 10 miles. Boone: 40 miles to the nearest steamboat landing. Fayette and Raleigh: steamboat landing in Fayette County, 40 miles from Raleigh Court-House. Jackson: this county borders on the Ohio River for some 35 miles; some six or seven villages in the county. Kan-

awha: navigable river through the center of the county. Cabell: most distant point in the county from steamboat landing, 20 miles.

What is the general quality of land, and the kind of timber?

Harrison: the land is of good quality; the timber is oak, poplar, walnut, maple, beech, hickory, ash, &c. Ohio: good; the tops of the highest hills producing more and better crops than even the valleys; walnut, white and black poplar, white and yellow, oak, white, black, and red, hickory, white and black, maple, beech, &c.; pawpaw and alder in abundance. Monroe: good, but hilly; oak, poplar, sugar-maple, beech, and hickory. Calhoun and Roane: very rich and productive; all kinds of timber—white oak, hickory, walnut, poplar, sugar-maple, &c. Lewis and Gilmer: very good; timber—oak, poplar, walnut, sugar-maple, and beech. Wood: sandy soil and oak timber; some sycamore, locust, and poplar. Pleasants: hilly; white oak, poplar, walnut, sugar-maple, and beech. Pendleton: river bottoms, and limestone on the hills and mountains; pine in every variety, oak and chestnut, walnut, cherry, sugar-maple, &c. Monongalia: of good quality; timber—white oak, hickory, poplar, sugar-maple, black and white walnut. Barbour: average quality of land good; timber—poplar, sugar-maple, oak, hickory, walnut, ash, and in the mountain pine. Hardy: some of the land is very fertile, and other very poor, with almost every variety of timber, viz, oak, pine, walnut, chestnut, poplar, hickory, ash, &c. Mineral: ordinary, very mountainous; valleys very fertile; pine, oak, sugar-maple. Upshur; Randolph: good; timber—poplar, oak, chestnut, beech, and pine. Preston and Taylor: good quality; oak and poplar, black walnut, hickory, ash, and sugar-maple. Jefferson: the general character of the land is limestone and slate-stone; the timber—oak, hickory, locust, and cedar. Ritchie: land generally good; timber—white oak and poplar. Boone: land rich and productive, but mountainous; timber in great abundance; poplar, walnut, wild cherry, sugar-maple, butternut, different kinds of oak, ash, &c. Fayette and Raleigh: white poplar, spruce pine, and white oak. Jackson: generally very productive; white oak, hickory, poplar, yellow pine in some places, beech, dogwood, walnut, black oak. Kanawha: land hilly, but the soil is good; poplar, oak, pine, and beech. Cabell: clay and loam, very good; oak, poplar, walnut, beech, sugar maple, hickory, &c.

For what kind of labor is there a demand?

Harrison: all kinds from farm hands to the best mechanics. Ohio: farm labor, mining, &c. Monroe: to work on railroad. Calhoun and Roane: farm labor principally. Lewis, Gilmer, Pendleton, and Wood: the same. Monongalia: farm and mechanical. Barbour: farm labor, and a few good mechanics. Hardy: farm labor chiefly. Mineral: principally for railroad. Upshur and Randolph: there is a demand for skilled labor to develop the mineral wealth of this division. Preston and Taylor: all kinds. Jefferson: farm hands and carpenters. Ritchie: domestic. Boone, Fayette, and Raleigh: farm labor chiefly. Jackson: farm and mechanical. Kanawha: good mechanics. Cabell: all kinds.

What mills or factories, if any, are in operation or in progress, requiring skilled labor?

Harrison: two grist and saw mills, and one machine-shop. Ohio, Monroe, Calhoun, Roane, Pleasants, Pendleton, Monongalia, Barbour, Hardy, Jefferson, Ritchie, Boone, Fayette, and Raleigh: none of any note. Lewis and Gilmer: several steam-mills and tanneries, but no manufacturing establishments. Wood: but few mills or factories in this county. Upshur and Randolph: grist-mills and saw-mills; no laborers needed. Preston and Taylor: four woolen-mills, two furnaces. Jack-

son: two woolen factories, ten or twelve grist-mills, two cigar manufactories, one tobacco manufactory, one boat yard. Kanawha: woolen factories and saw-mills. Cabell: only ordinary grist and saw mills.

Are there in your vicinity any railroads or other public works in progress requiring common labor? If so, how far distant?

Harrison: Northwestern road passes through the county. Ohio: no. Monroe: yes; 20 miles distant. Calhoun, Roane, Wood, Pleasants, Pendleton, Barbour, and Hardy: none. Mineral: only the Baltimore and Ohio Railroad, which is laying a double track. Lewis and Gilmer: no railroads; the State is building at Weston, Lewis County, a hospital for the insane. Monongalia: two railroads in contemplation. Upshur and Randolph: there will be soon. Jefferson: one thirty miles distant. Ritchie: one railroad running through the county town. Boone: Chesapeake and Ohio Railroad, 35 miles. Fayette and Raleigh: a railroad in progress. Kanawha: one hundred and sixty miles of railroad through the county. Cabell: good prospects for the Chesapeake and Ohio Railroad running through the center of the county; route surveyed.

If many foreign-born workmen are employed in your district, please give the preponderating nationality.

Harrison: the Northwestern Railroad employ Irish on their road; some few Dutch miners in the county. Ohio: German. Monroe: not many foreign-born. Lewis and Gilmer: Irish. Wood: German. Barbour: none. Hardy: none. Mineral: Irish. Upshur and Randolph: very few, Irish. Jefferson: nine-tenths of the workmen employed are Americans. Ritchie: Irish work on the railroads. Boone: a few Irish. Jackson: but few foreigners here; some German, French, and Irish. Kanawha: Germans.

Please state any advantages which your district can offer to laborers, mechanics, or small farmers. Is there much land of good quality and well watered yet unoccupied?

Harrison: this county needs good mechanics and common laborers; there is some land of pretty good quality unoccupied, which is well watered. Ohio: the city of Wheeling, being a manufacturing town, affords a good market for everything the land produces; good profits are realized by farmers; renters are fast becoming owners of land; the land is all rich and well watered; all occupied. Calhoun and Roane: these counties offer superior advantages to farm laborers, or small farmers; plenty of good rich land, well watered and timbered, can be bought at cheap rates, and is peculiarly adapted to grazing stock as well as farming; fine water-power; good opening for mills, factories, &c. Lewis and Gilmer: the land is well adapted to general farming purposes, and particularly for grazing; there is at least one-half of the land of good quality and well watered that is not permanently occupied. Wood: good land unoccupied, and generally well watered; laborers and small farmers are most needed here. Pendleton: large tracts of land of good quality, and worthy the attention of all those desiring to engage in sheep or cattle grazing; the water-power of the county is unsurpassed. Monongalia: land of good quality at low prices. Barbour: much unoccupied land can be purchased at a reasonable price; good openings for shoemakers, wagon-makers, &c. Mineral: a good deal of well-watered and well-timbered mountain land might be greatly improved. Upshur and Randolph: laborers and small farmers can do well in this division in cultivating mountain lands, which are rich and productive. Preston and Taylor: laborers and mechanics can find employment at good wages; much land of good quality, well watered, is yet unoccupied; coal and iron ore and timber in abundance. Jefferson: men of small means can

do as well here as in any part of the Union; the land is good and the climate delightful. Boone: abundance of good pasture and grazing land, plenty of springs and good water-power, but great lack of good mills and machinery; the greatest abundance of cannel and nearly every other kind of valuable coal, some veins from eight to ten feet in depth; this county offers the greatest inducements to wool-growers, it is thought, of any in the United States. Fayette and Raleigh: this section abounds in the choicest qualities of cannel, splint, and every variety of coal, and other valuable minerals, such as iron, copper, and silver; well watered with small water-courses; never-failing springs; any amount of good land for sale at low prices. Jackson: there are great inducements to small farmers; abundance of unimproved lands can be bought at a cheap rate; the climate is all that can be desired, soil productive, well adapted to grain, grass, and fruit of all descriptions. Kanawha: about 300,000 acres of unimproved land in this county. Cabell: a large amount of good land, well watered, yet unoccupied.

What are the prices of ordinary farm stock, sound and in good condition?

District.	Counties.	Working oxen, per pair.	Working horses, each.	Working mules, each.	Milch cows, each.	Sheep, each.	Hogs, each.
1	Harrison	\$150	\$125	\$150	\$40	\$2	*8c.
1	Ohio	150	125	150	50	3	*10c.
1	Nicholas	100	75	100	25		*5c.
1	Calhoun and Roane	125	100	\$125 to 140	\$20 to 30	\$1½ to 2	‡36
1	Lewis and Gilmer	125	100	125	25 to 50	2	\$5 to 10
1	Wood	\$125 to 200	100	50 to 150	40	2	‡86
1	Pleasants	140	140	150	40		*8c.
1	Ritchie	100 to 150	\$75 to 150	100 to 150	25 to 40	1 to 1½	\$5 to 30
2	Barbour	100 to 150	100 to 150	100 to 150	30 to 50	1 to 2½	5 to 10
2	Hardy	100 to 250	75 to 150	80 to 150	20 to 100	2 to 3	3 to 20
2	Mineral	140	140	130	30	2	9 to 16
2	Upshur and Randolph	100 to 150	100 to 150	100 to 150	30 to 50	1½ to 3	8 to 15
2	Preston and Taylor	175	100	125 to 150	40 to 50	1 to 1½	*10c.
2	Jefferson	125	150	175	40 to 50	2½ to 10	\$6 to 9
2	Monongalia	70 to 150	75 to 120	60 to 100	20 to 40	1	*8 to 10c.
2	Pendleton	75 to 200	75 to 150	75 to 150	25 to 40	1 to 2½	\$4 to 10
3	Mason and Putnam	100	100 to 150	100 to 125	30 to 40	1½ to 2	5 to 8
3	Boone	100	100	100	25	2	‡86
3	Fayette and Raleigh	100	100	125	25	2	\$4
3	Jackson	125	100	100	30	1 to 1½	*6 to 8c.
3	Kanawha	100	100	130	30	3	\$10
3	Cabell	75 to 175	50 to 150	50 to 200	20 to 40	1 to 3	\$1 to 10
	Average	\$134 54	\$112	\$123 77	\$35 72	\$2	\$6 50

*Per pound.

†By hundred weight.

II. WESTERN AND NORTHWESTERN STATES AND TERRITORIES.

OHIO.

Area, 25,576,960 acres. Population in 1870, 2,665,012.

Can land be purchased or rented in your district suitable for small farms on favorable terms?

*Adams and Butler: yes. Preble: the farms for rent are generally large. Champaign, Highland, Fayette, Brown, Franklin, Erie,

**Names of counties from which returns have been received.*

Union, Marion, Richland, Ottawa, Sandusky, Lucas, Williams, Wood, Defiance, Fulton, Lawrence, Jackson, Fairfield, Muskingum, Licking, Knox, Ashland, Wayne, Medina, Holmes, Monroe, Washington, Noble, Belmont, Stark, Columbiana, Carroll, Ashtabula, and Morgan: it can. Warren, Clinton, Clarke, Greene, Madison, Richland, Perry, Lorain, Guernsey, Stark, and Summit: no. Shelby: land can be purchased on fair terms; not much to rent. Darke: there are lands for sale and also farms for rent. Highland: farms generally small and occupied by owners. Morrow: I think not. Richland: not very favorable. Huron and Sandusky: yes. Crawford: farms can be purchased; but few to rent. Seneca: the same. Pickaway: yes, in some localities. Hocking: but very little suitable for small farms to be purchased or rented. Lorain: there is no unimproved land. Meigs: not very favorable. Athens: lands are often sold, but not rented. Columbiana: but little for rent or sale. Jefferson: in limited quantity. Ashtabula: land can be bought, not rented. Jefferson, part 2d: as a general thing the lands are owned and occupied by well-to-do farmers. Trumbull: it cannot on favorable terms. Portage: rather high. Mahoning: not many farms to rent. Geauga: can be purchased, but not rented.

What is the price per acre of small improved farms? State what proportion has been under cultivation, how much is fenced, and the kind of buildings.

Adams: \$40 to \$100 per acre. Butler: small improved farms vary in price according to locality, quality of soil, and improvements, from \$50 to \$150 per acre; land generally fenced, and from two-thirds to three-fourths under cultivation. Montgomery: average price per acre about \$100; about one-half cultivated and three-fourths fenced; buildings generally pretty good. Preble: from \$70 to \$80 per acre; three-fourths under cultivation; all fenced; good brick or frame buildings. Warren: average price per acre, \$75. Champaign: from \$50 to \$150 per acre; all under cultivation and fenced, with comfortable buildings. Shelby: \$35 to \$75 per acre. There is quite a diversity of soil, and also of improvements. Darke: from \$20 to \$100 per acre, with the same remark as above. Highland: average \$50 per acre; one-half to two-thirds cleared and under cultivation; all fenced; comfortable frame and log buildings. Fayette: \$60 to \$70; three-fourths under cultivation; all fenced; principally frame buildings. Brown: \$30 to \$100 per acre. Buildings generally frame or brick. Clinton: \$75 per acre; all fenced. Franklin: \$50 to \$100 per acre; about three-fourths in cultivation and fenced; mostly small frames. Clarke: the price of small well-improved farms here ranges from \$80 to \$100 per acre. Greene: \$100 per acre; three-fourths under cultivation; all fenced; buildings generally good, the majority of them frame. Erie: \$100 per acre; one-half in cultivation; all fenced; frame buildings. Madison: \$60 per acre; three-fourths in cultivation and fenced; brick and frame buildings. Union: about \$40 per acre; two-thirds under cultivation; nearly all fenced; buildings mainly log. Richland: \$75 per acre; two-thirds under cultivation; seven-eighths fenced; buildings principally wood. Morrow: from \$50 to \$65 per acre; from two-thirds to three-fourths under cultivation; buildings mostly frame. Marion: \$45 per acre; almost all under cultivation, and all fenced; good buildings. Ottawa, \$25 to \$50; one-half to three-fourths cultivated and fenced; buildings mostly frame. Huron: \$40 to \$75; nearly all under cultivation and well fenced; frame buildings. Sandusky: \$75 per acre, three-fourths improved; good fences and buildings. Crawford: from \$45 to \$75; three-fourths under cultivation; all under fence; from

ordinary to goods buildings. Seneca: average, \$50, one-half to two-thirds cultivated; generally fenced; buildings, ordinary. Lucas: \$15 to \$75, according to distance from town and improvements; one-half under cultivation and fenced; all kinds of buildings, from a log house to a brick mansion. Pickaway: from \$25 to \$125; much of the land is devoted to grazing, nearly all inclosed; buildings generally good. Williams: \$30 to \$65; about one-half under cultivation and fenced; mostly frame buildings. Wood: \$15 to \$30, about one-half cleared and fenced; frame buildings. Defiance: \$15 to \$25; about one-third under cultivation; one-half fenced; buildings generally of logs. Fulton: \$35; one-half under cultivation; ordinary buildings. Lawrence: about \$15 per acre; one-fourth under cultivation and fenced; buildings of logs; generally. Jackson: \$25 to \$50; all fenced; one-half under cultivation; buildings poor. Hocking: about \$20; two-thirds fenced and under cultivation; buildings generally not very good. Fairfield: this is an old county; small farms worth from \$40 to \$150 per acre. Perry: \$30 to \$100; about three-fourths cleared and fenced. Muskingum: \$30 to \$50; three-fourths under cultivation; about all fenced; buildings generally small, and mostly frame or log. Licking: \$65; about three-fourths under cultivation, all fenced; mostly frame buildings. Knox: \$20 to \$50, partly improved. Lorain: \$50 to \$100; four-fifths of all lands in this county are cleared; nearly all fenced. Ashland: about \$60 per acre; two-thirds under cultivation and fenced; the buildings are frame and brick. Wayne: \$50 to \$150; two-thirds under cultivation, balance timber land, nearly all fenced; usually two-story frame buildings. Medina: \$40 to \$60; from two-thirds to four-fifths under cultivation, generally all fenced; frame buildings. Holmes: \$50 to \$60; one-half under cultivation; all fenced; wood buildings. Monroe: \$15 to \$20; from one-third to two-thirds under cultivation and fenced; comfortable buildings. Meigs: hill land, \$25 to \$50 per acre; bottom land, \$75 to \$100; from one-half to three-fourths fenced and under cultivation; generally frame buildings. Washington: \$5 to \$200 per acre, embracing all qualities of land; more than one-half improved; buildings generally low-priced. Athens: \$15 to \$25 per acre; about one-half fenced and cultivated. Noble: \$25 to \$50; about two-thirds fenced and under cultivation; buildings ordinary. Belmont: \$20 to \$100, according to location, quality, and improvements. Guernsey: \$30 to \$45; three-fourths under cultivation, all under fence; buildings generally frame, not very good. Columbiana: about \$50 per acre; about three-fourths under cultivation and fenced; buildings mostly frame. Stark: from \$65 to \$125; more than half under cultivation, all fenced, good frame and brick dwellings. Jefferson: about \$50; one-half to two-thirds under cultivation, three-fourths fenced; buildings frame or hewed logs. Carroll: \$30 to \$60 for upland; valley land is worth from \$100 to \$125 per acre; about two-thirds under cultivation, all fenced; buildings, ordinary frame and brick. Ashtabula: \$75 to \$125; three-fourths to seven-eighths under cultivation, mostly all under fence; buildings fair to good. Jefferson: \$40 to \$100, fairly improved. Summit: \$40 to \$70, all fenced and under cultivation; frame buildings. Trumbull: \$60 to \$125; three-fourths under cultivation, all fenced; buildings of medium quality. Portage: \$80 to \$120 per acre; three-fourths cleared, well fenced; good buildings. Mahoning: from \$40 to \$100; from one-half to three-fourths under cultivation. Geauga: \$30 to \$50; from one-half to three-fourths under cultivation, all fenced; frame buildings. Morgan: \$35 to \$85; two-thirds under cultivation; good fences and buildings.

What is the price per acre of unimproved land, what proportion is cleared, and how much, if any, is fenced?

Adams: from \$5 to \$20 per acre. Butler: uncleared land commands the same price as that which has been cleared and cultivated. Montgomery: from \$50 to \$75 per acre, one-half of same cleared and fenced. Preble: unimproved land with good timber is worth as much as improved. Highland, Fayette, Clarke, Greene, Morrow, Richland, Huron, Crawford, Fairfield, Perry, Lorain, Wayne, Medina, Monroe, Noble, Belmont, Columbiana, Stark, Ashtabula, Jefferson, Summit, Trumbull, Portage, Mahoning, and Geauga: none of this description for sale; the uncleared land is worth as much as, if not more than, that which is cleared. Champaign: woodland from \$75 to \$200 per acre; there is no unimproved cleared land in the county. Shelby: \$25 to \$35; not much good unimproved land in the county. Darke: from \$8 to \$80. Brown: from \$30 to \$40 per acre. Clinton: \$45 per acre; very little cleared. Franklin: \$50; three-fourths cleared and fenced. Erie: \$50. Madison: \$35 per acre; three-fourths cleared and fenced. Union: \$20 to \$35; about three-fourths cleared; nearly all lands are fenced. Richland: \$65 per acre; one-eighth is cleared, seven-eighths fenced. Marion: average, \$20 per acre. Ottawa: \$10 to \$25 per acre; Sandusky: \$30 to \$60. Seneca: average, \$30. Lucas: from \$5 to \$50. Pickaway: there is no land in this county worth under \$25 per acre, and the lands are nearly all inclosed for cultivation or grazing. Williams: \$10 to \$25 per acre; about one-half cleared and two-thirds fenced. Wood: from \$5 to \$12 per acre. Defiance: \$10 per acre at an average. Fulton: from \$5 to \$30 per acre. Lawrence: about \$7. Jackson: very good can be had for \$5 per acre. Hocking: average price \$5. Muskingum: \$25 to \$40; one-fourth cleared and fenced. Licking: \$50; one-fifth cleared; nearly all fenced. Knox: \$10 to \$15. Lorain: none unimproved. Holmes: \$35 to \$50. Meigs: average \$15. Washington: at all prices, according to quality, &c. Athens: \$10 to \$20; one-third to one-half cleared and under fence. Guernsey: very little, if any, for sale; an occasional tract worth from \$18 to \$30 per acre. Carroll: \$30 per acre if tolerably well timbered; none cleared, and none under fence. Ashtabula: \$50 per acre, one-half cleared and under fence; \$75 to \$100 for timber land, according to quality of timber. Mahoning: very little unimproved, and it is worth more than the improved on account of the timber. Morgan: cleared land, otherwise unimproved, from \$10 to \$200.

What is the yearly rent of small improved farms? If rented on shares, what share does the owner receive? Does the latter provide stock, implements, or seeds?

Adams: \$3 to \$15 per acre; or, if on shares, owner provides nothing, and gets one-third. Butler: owner usually receives one-half the crop, and when he furnishes stock, implements, and seeds, he receives two-thirds. Montgomery: owner receives two-fifths, tenant furnishing everything. Preble: \$5 to \$8 per acre, money rent; on shares, owner receives one-half when he provides stock, implements, and seeds, otherwise one-third. Champaign: \$5 to \$10 per acre; shares as the preceding. Shelby: \$3 to \$6, or two-fifths of crop, owner providing nothing. Darke: \$2 to \$3 per acre; if on shares, two-fifths of crop is the usual rate, lessee furnishing everything. Highland: \$3 to \$6 per acre; on shares, owner receives one-third, and furnishes stock, seeds, &c. Fayette: \$5 per acre, or one-half of the corn in the stack; one-third of the small grain in the bushel. Brown: \$5 to \$10 per acre for cleared land; tobacco

land, housing, and sticks furnished at \$15 to \$25 per acre; on shares, the usual rent is one-third to one-half the crop, the renter furnishing his own team and seeds. Clinton: \$4 per acre, or two-fifths of the product. Franklin: \$5 to \$8 per acre; on shares, one-half in shock or barn. Clarke: \$8 to \$10 per acre; shares, one-half, owner finding nothing. Greene: from \$5 to \$10; generally rented for one-half the crop, tenant furnishing everything. Erie: \$3 to \$5 per acre; shares as the preceding. Madison: \$5 per acre; shares, owner receives one-half, and if he provides stock, &c., two-thirds. Morrow: when the lessee finds everything, he delivers one-third of the grain in the crib, and one-half the hay in the mow. Union: cash rent \$1 50 per acre; on shares, one-half, the occupant to find implements and seeds. Richland: \$3 per acre; shares, owner receives two-thirds, and furnishes everything but labor, or two-fifths, and furnishes nothing. Marion: shares; same as preceding. Ottawa: one-third the grain and one-half the hay is given to the owner, tenant providing everything. Huron: \$5; shares, owner receives one-half and provides half the team and seed. Sandusky: \$5 per acre; owner's share, one-third to one-half; in the latter case he furnishes half the seeds. Crawford: \$3 per acre; on shares, owner receives one-half of all produced. Seneca: \$3 per acre; on shares, if landlord furnishes everything, he receives one-half; if only the seed, two-fifths; if nothing, one-third. Lucas: \$3 to \$5 per acre; shares, one-third to one-half to owner; he seldom furnishes. Pickaway: owner receives one-half of the corn, one-third of the wheat; he furnishing seeds. Williams: \$3 to \$5; shares, owner receives one-third of the grain and one-half of the hay; furnishes nothing. Wood: furnishing stock, implements and seeds, the owner gets one-half; without either, one-third. Defiance: one-third to two-fifths where renter furnishes implements and seeds, which is the usual custom in this vicinity. Fulton: owner receives two-fifths of crop. Lawrence: one-third to owner; or one-half if he furnishes seeds, team, &c. Hocking: shares, the same. Fairfield: \$5 to \$10 per acre; if teams and implements are furnished by owner, he receives two-thirds of crop. Perry: owner receives one-half, and provides nothing. Muskingum: \$50 to \$100 per annum; shares, owner two-fifths; does not furnish. Licking: \$6 per acre, or one-half the crop. Knox: \$2 to \$5; shares, from two-fifths to one-half to owner. Lorain: \$3 to \$4, or one-half of crop. Ashland: \$3, or one-half the product. Wayne: about 6 per cent. on value of premises, or one-half the crop. Medina: \$1 50 to \$3 per acre, or else owner one-third. Holmes: \$3 per acre, or two-fifths of crop. Monroe: one-third of crop, or one-half when owner provides stock, implements, and seeds. Meigs: bottom farms rent for one-half the crop, tenant furnishing all; back farms rent for less. Washington: on good land owner receives half; on thin land, one-third. Athens: owner gets one-third on upland farms, and one-half on river farms; tenant stocks the farm and finds seeds. Noble: \$1 to \$2 per acre, or one-half the crop. Belmont: \$2 to \$4; shares, owner one-third. Guernsey: very few to rent; \$2 to \$2 50 per acre; owner two-thirds, he providing stock, implements, &c. Columbiana: \$3, or one-third, nothing furnished; otherwise one-half. Stark: \$3 to \$5, or one-third to owner. Jefferson: owner one-third, or if he furnish, then one-half. Carroll: \$2 to \$5 per acre; shares, as above. Ashtabula: stocked farms pay owner three-fifths; not stocked, one-half, expense of tools divided. Summit: \$3 per acre, or one-third the crop. Trumbull: one-half to each, each furnishing half of stock, seeds, &c. Portage: \$5 per acre, or shares, as the preceding. Mahoning:

half the proceeds, each furnishing half. Geauga: one-half to each. Morgan: one-third, or one-half, and furnishes implements, &c.

What are the chief articles of production, and what are the present prices of two or three of them?

Articles of production.	Prices.	Counties.
Wheat.....per bushel..	\$0 90	Preble, Union, Williams, Carroll.
Do .....do.....	\$90 to 1 00	Richland.
Do .....do.....	90 to 1 10	Hocking.
Do .....do.....	95	Adams, Highland, Clarke, Seneca, Knox.
Do .....do.....	1 00	Montgomery, Butler, Champaign, Shelby, Brown, Clinton, Franklin, Greene, Warren, Huron, Crawford, Defiance, Pickaway, Fulton, Fairfield, Perry, Muskingum, Holmes, Athens, Noble, Guernsey, Columbiana, Jefferson, Morgan, Darke.
Do .....do.....	1 05	Fayette, Lucas.
Do .....do.....	1 10	Erie, Wood, Jackson, Ashland, Wayne, Stark.
Do .....do.....	1 15	Meigs, Sandusky.
Do .....do.....	1 25	Ottawa, Portage, Mahoning.
Do .....do.....	1 50	Ashtabula.
Corn .....do.....	40	Highland, Crawford, Morrow, Richland, Adams.
Do .....do.....	60	Clinton, Franklin, Madison, Perry, Athens, Guernsey, Jefferson, Morgan.
Do .....do.....	65	Shelby, Darke, Fayette, Clarke, Union, Marion, Pickaway, Fairfield, Knox, Holmes, Carroll.
Do .....do.....	50	Belmont, Sandusky.
Do .....do.....	55	Licking.
Do .....do.....	70	Champaign, Seneca, Meigs, Muskingum, Noble, Mahoning.
Do .....do.....	75	Preble, Butler, Highland, Brown, Greene, Erie, Huron, Wood, Jackson, Hocking, Lorain, Wayne.
Do .....do.....	80	Montgomery, Ottawa, Lucas, Fulton, Ashland, Columbiana, Clarke, Mahoning.
Do .....do.....	90	Defiance.
Do .....do.....	1 00	Portage.
Oats .....do.....	30 to 34	Darke, Belmont.
Do .....do.....	35	Columbiana, Crawford, Morrow.
Do .....do.....	37 to 40	Richland, Sandusky.
Do .....do.....	40	Fulton, Perry, Knox, Noble, Clarke, Union, Huron, Seneca, Jefferson, Portage, Mahoning.
Do .....do.....	45	Butler, Shelby, Greene, Marion, Meigs, Stark.
Do .....do.....	47	Lucas.
Do .....do.....	50	Montgomery, Clinton, Ottawa, Williams, Wood, Wayne, Hocking, Athens, Mahoning.
Do .....do.....	55	Brown, Jackson, Ashland.
Do .....do.....	60	Champaign.
Barley .....do.....	75	Darke.
Do .....do.....	1 00	Huron.
Do .....do.....	1 30	Butler, Clarke.
Rye .....do.....	75	Highland, Union, Darke.
Do .....do.....	90	Stark, Franklin.
Potatoes.....do.....	35	Muskingum, Wayne, Franklin.
Do .....do.....	40	Morgan, Champaign.
Do .....do.....	50	Defiance, Meigs, Athens.
Do .....do.....	60	Jefferson.
Do .....do.....	60 to 70	Jackson.
Do .....do.....	75	Crawford, Huron.
Do .....do.....	90 to 1 00	Mahoning.

Articles of production.	Prices.	Counties.
Wool.....per bushel..	\$0 40	Licking, Franklin.
Do .....do.....	\$0 38 to 40	Richland.
Do .....do.....	40 to 60	Lorain.
Do .....do.....	45	Medina, Belmont.
Tobacco.....per pound..	12	Brown.
Do .....do.....	15	Montgomery.
Hay .....per ton..	6 00	Marion.
Do .....do.....	10 00	Erie, Madison, Ottawa, Perry, Belmont.
Do .....do.....	12 00	Fayette, Franklin, Wood, Licking, Lorain.
Do .....do.....	12 00 to 15 00	Lucas, Meigs, Brown.
Do .....do.....	18	Butler.
Broom corn .....do....	3 50	Butler.

What is the distance to a market town, a railroad station, or a steamboat landing?

Adams: this county lies on the Ohio River. Hamilton, Butler County, is a railroad station, furnishing a market itself, and being within 25 miles of Cincinnati. Montgomery: not more than 5 miles to a railroad station, or a market town from any part of the district. Preble: there are two railroads passing through this county. The distance is short to a station or market town. Warren: 4 to 6 miles. Champaign: market and shipping point at the county town centrally located, at the crossing of three railroads. Shelby: two railroads running through the county, crossing at right angles at this place, Sidney; also a canal from Cincinnati to Toledo. Darke: no distance at all; railroads and towns almost every half-mile. Highland: 8 or 10 miles from remote points; two railroads in our county. Fayette: a railroad runs through the county east and west, and one to be built running north and south. Brown: 8 miles to the Ohio River. Clinton: from 4 to 10 miles. Franklin: five railroads and a canal crossing the county in every direction; greatest distance from railroad 10 miles. Clark: good market and railroad connections here. Greene: no point in this county more than 6 miles from a good market town or railroad station. Erie: from 1 to 8 miles. Morrow: 2 miles to a railroad station. Union: three railroads cross the county; distance to stations from 2 to 8 miles. Richland: 7 miles. Marion: average distance 8 miles. Ottawa: three market towns in this county, one railroad, two stations, steamboat landings; on Lake Erie, 10; on river Portage, 3; on Sandusky Bay, 6. Huron: 40 rods. Sandusky: Fremont, the county seat and steamboat landing, is situated about the center of the county. Crawford: three railroad stations in the county. Seneca: 6 miles. Lucas: from one-half a mile to 6 miles. Pickaway: a railroad through the county and also a canal. Wood: all three at this town. Defiance: the facilities for marketing produce and lumber of all kinds is good by railroad and canal. Fulton: 10 miles is the furthest. Lawrence: the Ohio River runs half-way around the county. Jackson: market and railroad at county seat. Hocking: distance to Columbus by railroad 49½ miles. Fairfield: two railroads through the county. Perry: 8 miles to railroad station. Muskingum: not to exceed 8 miles. Licking: average distance about 6 miles from market town and railroad station. Knox: railroad runs through one corner of division. Lorain: our county seat is 24 miles from Cleveland; two railroads run through the county. Ashland: 7 miles. Wayne: the principal market town, Wooster, is located in about the center of this division, on the Pittsburg, Fort Wayne and

Chicago Railroad. Medina: 12 miles in one direction to railroad stations and 18 miles in another direction. Holmes: railroad running through center of county. Monroe: 40 miles to market town, 18 miles to railroad station, and 18 miles to steamboat landing. Meigs: Ohio River bounds our county on the east and south; Pomeroy and Middleport and other points on the river are good markets. Washington: we have 60 miles on the Ohio River; 30 miles slack-water navigation, and a railroad through the county. Athens: a railroad through the county with seven stations within the county. Noble: 18 miles. Belmont: six railroad stations within the county, and steamboat landing from 10 to 30 miles. Guernsey: Central Ohio Railroad passes through the county. Columbiana: railroad across north part of county; markets at six stations. Stark: 4 miles on an average. Jefferson: county bordered by Ohio River and railroad, and one railroad crossing near the center. Carroll: no part of the county is more than six miles from a railroad nor more than three miles and a half from a market town. Ashtabula: 2 or 3 miles. Summit: to market town, 15 miles; to railroad station, 10 miles; to steamboat landing, 20 miles. Two railroads in the immediate vicinity. Portage: shipping facilities good; stations near. Mahoning: there are three railroads in this county. Geauga: 28 miles to Cleveland, 14 to a railroad, 18 to a steamboat landing. Morgan: market town in the center of the county.

What is the general quality of land and the kind of timber?

Adams: limestone land; timber—beech, hickory, and sugar-tree. Butler: river bottom and upland, bearing ash, oak, hickory, walnut, sugar-tree, sycamore, &c. Montgomery: good; timber as above. Preble: land good; timber—beech, sugar-maple, poplar, walnut, and oak. * Butler: limestone soil and very good; oak, sugar, hickory, and walnut. Warren: upland; oak, sugar-maple, and walnut. Champaign: calcareous clay, black loam, and black soil; oak, hickory, walnut, beech, sugar-maple, and poplar. Shelby: some very good, some rather thin; beech, oak, hickory, ash. Darke: very good; oak, ash, hickory, walnut, beech, sugar-maple, &c. Highland: good rolling limestone, upland and bottom; oak, hickory, poplar, ash, beech, and walnut. Fayette: rich black loam; black, white, and burr oak, ash, elm, hickory, hard and soft maple, walnut, and cherry. Brown: first quality from the river six miles back, the remainder of second quality; walnut, ash, buckeye, beech, oak, maple. Clinton: quality good; oak, hickory, walnut, and beech. Franklin: good; oak, walnut, beech, elm, maple, &c. Clark: bottom, second bottom, and upland; oak, ash, sugar, hickory, and beech. Greene: land good; timber—oak, hickory, walnut, sugar-maple, beech, cherry, and buckeye. Erie: clay, sand, and black soil; maple, oak, hickory, beech, ash, black walnut, and elm. Madison: black loam; all kinds of timber except pine, beech, and poplar. Morrow: the land is good; timber is oak, black walnut, ash, hard and soft maple and beech. Union: clay upland, on the streams bottom land; timber—sugar-maple, hickory, ash, beech, and walnut. Richland: first quality clay and loam; the timber is white oak, black walnut, hard maple, and beech. Marion: land is of good quality; the timber is hickory, oak, beech, elm, and ash. Ottawa: rich alluvial, on substratum of clay 30 to 40 feet deep; oak, poplar, elm, cottonwood, ash, hickory, black walnut, mulberry. Huron: varied; clay and gravel, sandy prairie; oak, hickory, ash, walnut, beech, maple. Sandusky: east part of county clay and sandy loam; west part, black loam. Crawford: soil black, sand

* Return from another part of the county.

and clay; quality generally good; timber—oak, hickory, walnut, ash, poplar, cherry, sugar-maple, and beech. Seneca: limestone land; oak, walnut, sugar-maple, beech, hickory. Lucas: general quality of land good; hickory, oak, ash, and elm. Pickaway: the quality of land is unsurpassed; timber large and abundant. Williams: sand and clay, very productive; timber—oak, ash, maple, beech, basswood, black walnut. Wood: soil black and rich in the timber districts, sandy in plains and openings; oak, ash, elm, beech, maple, cottonwood, sycamore, &c. Defiance: clay loam and black sand; oak, hickory, sugar-maple, walnut, and ash. Fulton: good; oak, ash, maple, hickory, walnut, elm, and basswood. Lawrence: very rough, with oak, poplar, beech, and pine timber. Jackson: generally poor; timber—oak, poplar, pine. Hocking: hilly, underlaid with coal and iron ore; oak timber principally, with some pine, hickory, and poplar. Fairfield: bottom and upland of good quality; white and black oak, hickory, cherry, black walnut, &c. Perry: good; oak, hickory, beech, sugar-maple, walnut, and ash. Muskingum: good: white-oak, poplar, hickory, walnut, beech, sugar-maple, &c. Licking: first-class; oak, walnut, ash, sugar-maple, and hickory. Knox: some very good, some thin; oak, walnut, sycamore, black-oak, beech, and chestnut. Lorain: clay subsoil with some sandy ridges of good quality; oak, ash, hickory, and elm. Ashland: first and second bottoms; black sandy loam, upland, clay; oak, hickory, black walnut, and sugar-maple. Wayne: sand and clay; good timber, principally white-oak. Medina: clay soil, principally with sandy loam in some portions of the county; beech and maple, oak, white wood, black walnut, &c. Holmes: limestone soil; the highest pinnacle will produce good corn; white oak, poplar, hickory, chestnut, walnut, and butternut. Monroe: clay soil and white-oak timber. Meigs: part of the upland is good, and perhaps one-quarter very poor; the bottoms are good. Washington: bottom and hill land; oak, sugar-maple, beech, and poplar. Athens: most of the land is good, and the general average is fair, though undulating and broken. Noble: good; white oak, poplar, walnut, sugar-tree, ash, and beech. Belmont: land is diversified, sandy loam, but chiefly limestone clay, very productive; timber chiefly oak, sugar-maple, walnut, and poplar. Guernsey: pretty good; timber—oak, sugar-tree, beech, and walnut. Columbiana: land sandy, with some clay, generally good; oak, beech, sugar-maple, and hickory. Stark: sandy soil; white oak. Jefferson: very good; oak, walnut, sugar-maple, some poplar. Carroll: principally sandy and of good quality, some limestone; white, black, and red oak, hickory, walnut, ash, chestnut, and poplar. Ash-tabula: medium quality; oak, whitewood, beech, maple, ash, hickory, and chestnut. Summit: clay loam; beech, maple, hickory, and white oak. Trumbull: land generally good; oak, beech, hickory, and sugar-maple. Portage: rolling land, soil good; oak, beech, maple, chestnut, whitewood, and hickory. Mahoning: good; oak, beech, maple, elm, and some very fine oak timber. Geauga and Morgan: sandy loam and clay, some limestone; oak, maple, walnut, poplar, chestnut, ash, hickory, and beech.

For what kind of labor is there a demand?

Adams, Richland, Lucas, and Muskingum: all kinds skilled and common labor. Montgomery: carpenters and builders more than any other. Preble, Fayette, Clinton, Franklin, Greene, Madison, Morrow, Richland, Sandusky, Pickaway, Fairfield, Wayne, Washington, Noble, Carroll, Ashtabula, and Geauga: farm labor principally. Butler: farming and mechanical. Warren: supply equal to the demand except a lack of female laborers. Champaign: farm and house

labor principally. Shelby, Erie, Morrow, Marion, Huron, Seneca, Jackson, Muskingum, Licking, Knox, Lorain, Ashland, Holmes, Monroe, Columbiana, Stark, Jefferson, Trumbull, Portage, Mahoning, and Morgan: not much demand for any kind at this time. Darke: all kinds, but particularly farm labor. Highland: farm labor. Brown: farm and day labor. Clinton: farm labor. Clark: skilled mechanical labor. Union: farming and ditching to a limited extent. Ottawa: farming, fishing, vine culture, quarrying, woodcutting, and stonecutting. Crawford: farm and mechanical. Williams: farm and mechanical labor. Defiance: farm labor, mechanical labor, and woodchoppers. Fulton: ordinary farm laborers, and almost all kinds of mechanical labor. Lawrence: coal and ore-diggers and choppers. Hocking: miners. Licking: common laborers. Medina: farm and mechanical. Meigs: mining coal and boating. Athens: railroad labor, mining, and manufacturing of salt. Belmont: farm and mechanical. Guernsey: farm labor in summer, none in winter. Columbiana: farm, mechanical, and mining. Ashtabula: farm and mechanical, shipwrights and sailors. Summit: farm and domestic. Trumbull: farm and common labor.

What mills or factories, if any, are in operation or in progress requiring skilled labor?

Adams: woolen factories and wood-work factories. Butler: foundries and machine-shops, manufactories of agricultural implements, flour-mills, and some fifteen paper-mills. Preble: foundries, grist and saw mills, cabinet factories, and carriage shops. Butler: seven paper-mills, one foundry, two planing-mills, two grist-mills, two saw-mills. Warren: grist-mills. Champaign: none of note. Shelby: nine water and four steam flour-mills, one large woolen factory, and a number of saw-mills. Darke: grist and saw mills, woolen factories, planing-mills, foundries, machine-shops, &c. Highland: a few ordinary planing-mills and woolen factories. Fayette: one woolen factory. Brown: woolen factories, saw and grist mills, planing-mills, sash and door factories, piano factory, &c. Clinton: three woolen-mills, one sash and blind factory, and a number of flour-mills. Franklin: flour and saw mills, woolen-mills, iron rolling-mills and machine-shops. Clark: machine-shops, woolen factories, &c. Greene: flour-mills, woolen factories, bagging factories, and distilleries. Madison: woolen-mills. Union: one woolen factory and a few flour-mills. Richland: six flour-mills, nine saw-mills, two woolen factories, three foundries, four sash factories, two carriage factories, two furniture factories, none doing very heavy business. Ottawa: three grist-mills, twenty-two saw-mills, and six shingle and spoke mills, three woodenware mills. Huron: none but what are supplied. Sandusky: sash and blind, hubs and spokes, grist and saw mills, woolen factories. Crawford: one woolen mill, one hub and spoke factory, six machine-shops, three foundries, all requiring skilled labor. Seneca: woolen-mill, stove foundry, and agricultural works, all supplied with laborers. Lucas: flour-mills, woolen-mills, machine-shops, paper-mills. Pickaway: one woolen-mill, one foundry, both well supplied with labor. Williams: one machine-shop, one hub and spoke factory, one stove foundry, several grist-mills. Wood: two sash and blind factories, two stove factories, five or six flour-mills, and about thirty steam saw-mills. Defiance: in the county of Paulding there are two large iron furnaces, where large quantities of iron are manufactured, affording work for quite a number of skilled laborers. In the county of Defiance there is a hub and spoke factory, stove factory, machine-shops, &c. Fulton: very few. Lawrence: furnaces, rolling-mills, machine-shops, foundries, &c. Jackson: woolen-mills, furniture manufactory,

and thirteen iron furnaces. Hocking: one woolen factory, two iron furnaces, one steam furniture factory, one planing-mill, a number of steam saw-mills, and one steam flour-mill. Fairfield: saw and grist mills, woolen factories, agricultural-implement factory, founderies, and shovel factory. Muskingum: rolling-mills, machine-shops, woolen factories, cotton factories. Licking: woolen-mill, rolling-mills, machine works, oil refineries and gas works, distillery. Knox: one small factory, several grist-mills and saw-mills. Lorain: grist-mills, saw-mills, stone-quarries. Ashland: all supplied. Wayne: steam-engine works, agricultural implements, paper-mill. Medina: woolen factories, saw and grist mills. Holmes: agricultural machine-works. Monroe: none. Meigs: rolling-mill, nail-mill, machine-shops, woolen factory, grist and saw mills, a number of salt works, where large quantities of salt are made. Washington: one rolling-mill, one bucket factory, three machine-shops, and many grist and saw mills, also tanneries and other factories. Athens: salt furnaces, grist and woolen mills, furniture factory, &c. Noble: none. Belmont: none except flour-mills and machine-shops, and one woolen factory. Guernsey: none. Columbiana: one woolen factory, four agricultural works, two furnaces, two machine and engine shops, two door and sash factories. Stark: woolen and grist mills, machine and plow factories. Jefferson: one woolen factory. Carroll: there are above seventy-five small manufacturing establishments; no demand for labor. Ashtabula: grist and saw mills, sash, blind, and planing mills. Trumbull: rolling-mills, furnaces, founderies, flour, saw, and flax mills. Portage: glass factory, agricultural machine-shops, railroad shops, and some flour-mills. Mahoning: not any. Geauga: fourteen cheese factories. Morgan: three flour-mills, woolen factories, two founderies, two oil factories, one sash and door factory. Hamilton: the city of Cincinnati in this county contains numerous and extensive manufactures of furniture, iron, machinery, hardware, soap and candles, clothing, boots and shoes, also pork-packing establishments, and a great variety of other factories, employing skilled labor.

Are there in your vicinity any railroads or other public works in progress, requiring common labor? If so, how far distant?

Preble: none in progress, one in anticipation. Shelby: two railroads through county seat. Darke: we have more miles of railroad finished than any other county of Ohio, none in progress; four hundred miles turnpike finished. Brown: seven turnpikes under contract. Morrow: one railroad. Seneca: one in contemplation. Williams: one about twenty-four miles west of this place. Fulton: through the center of the county. Lawrence: no public works in progress, but common labor always in demand. Hocking: twelve miles distant. Perry: one in progress. Muskingum: fifteen miles distant. Licking: two. Wayne: two roads in contemplation. Washington: one. Athens: one extending through center of county. Noble: distant one-fourth of a mile. Belmont: the Central Ohio Railroad runs through this division. Trumbull: two in contemplation. Portage: one six miles off.

If many foreign-born workmen are employed in your district, please give the preponderating nationality.

Butler: Scotchmen are employed in paper-mills, and we have a large German and Irish population. Montgomery and Preble: a few, principally Germans. Warren, Champaign, Fayette, Clinton, Clark, Greene, Madison, Morrow, Richland, Hocking, Noble, and Ashtabula: Irish. Franklin, Marion, Seneca, Lucas, Stark, Morgan, Monroe, and Washington: Germans. Shelby, Darke, Highland, Erie, Sandusky, Pickaway, Williams, Wood, Fairfield, Muskingum, Licking, Loraine,

Jefferson, Portage, and Wayne: Irish and Germans. Union: Irishmen about the towns, Germans mostly farming. Ottawa: Germans constitute half our population. Huron: Irish and Dutch. Defiance: mostly Germans, some French. Fulton: a great many Germans. Jackson: Welsh. Medina: English and Germans, with some Irish. Meigs: English, Welsh, and German. Athens: Irish on railroads, Welsh, English, and Germans as miners. Belmont and Guernsey: a few Irish laborers keeping up repairs on railroads. Columbiana: Miners, Welsh, Irish, and English. Mahoning: Welsh miners. Summit: English. Hamilton: Germans, chiefly; also many Irish.

Please state any advantages which your district can offer to laborers, mechanics, or small farmers. Is there much land, of good quality and well watered, yet unoccupied?

Adams: land generally taken up. Butler County is the garden spot of the Miami Valley. The Miami Valley for water, stone, timber, good soil, a good climate, central position, and good markets combined, has no equal within the United States. Montgomery: the land is nearly all occupied. Persons understanding the business could do well as market gardeners, also at raising tobacco. Preble: no particular advantage over other counties similarly situated. Employment for laborers and mechanics at good wages, and a ready sale for farm products. Warren: the wealth of the county offers inducements to active labor which meets with a sure reward. Champaign: a healthy climate, productive land, good wages, and convenient market; not much land unoccupied. Shelby: a number of farms for sale; some demand for mechanics, but none for common laborers. Darke: this county will soon be A No. 1 in an agricultural point of view. Highland: but little good land unoccupied. Brown: any person who is willing to work and to live economically can make a good home in a few years. Franklin: good advantages for small farmers and industrious mechanics; no land unoccupied. Clark: no special advantages. Greene: there is a demand for farm labor for about one-third of the year. Erie: no particular advantages; good land nearly all taken up. Madison, Morrow, Richland, Marion, Huron, Crawford, Seneca, Jackson, Fairfield, Knox, Lorain, Ashland, Wayne, Holmes, Monroe, Belmont, Guernsey, Columbiana, Jefferson, Ashtabula, Summit, Trumbull, Portage, Geauga, and Morgan: the same. Union: small farmers who have means to purchase can find opportunities to purchase lands advantageously. Richland: laborers and mechanics can find steady employment at fair wages. Ottawa and Sandusky: the same. Lucas: good markets, good roads, churches, school-houses; land and building materials cheap. Pickaway: this county offers great advantages for small farmers; the soil is very fertile and the access to markets good. Williams: about one-quarter of the land of this county unoccupied. Wood: considerable wild land for sale. Defiance: great inducement for honest, industrious men to settle in this vicinity. Fulton: a considerable quantity of good land yet unoccupied. Lawrence: this being almost exclusively a mineral region, laborers and mechanics can generally find employment at good wages. Hocking: no land of good quality yet unoccupied; extensive coal mines are soon to be opened, which will create a demand for miners. Muskingum: great inducements to persons desirous of buying small farms; quality of the land unsurpassed. Licking: fertile soil, good and sure crops, ready access to market. Medina: all kinds of labor commands a fair price, and is in good demand; no land unoccupied. Meigs: mining coal and *manufacturing salt* are the chief branches of industry, and they make *employment for many laborers; farm laborers and mechanics find regu-*

lar employment here. Washington: a demand for mechanical labor. Athens: laborers and mechanics find ready employment in the construction and keeping in repair the railroads in the county and the different mills, salt works, &c. Stark: a healthy climate, good markets; no land unoccupied. Carroll: good inducements for small farmers. Mahoning: good inducements for laborers and mechanics and female servants, the last particularly.

What are the prices of ordinary farm stock, sound and in good condition?

Districts.	Counties.	Working oxen, per pair.	Working horses, each.	Working mules, each.	Milch cows, each.	Sheep, each.	Hogs, per pound.
3	Butler.....	\$150	\$60 to 140	\$150	\$50	\$3	8c.
3	Preble.....	150	\$100 to 125	\$100 to 125	\$50 to 80	\$2 to 5	8 to 10c.
3	Warren.....	150	80	80	45	2½	6½c.
3	Montgomery.....	150	125	150	40	2	8c.
4	Champaign.....	150	150	150	40	1½	*\$4 50
4	Shelby.....	\$75 to 100	100	100	30 to 50	3 to 5	9c.
4	Darke.....	100	100 to 150	100 to 150	25 to 50	2½	6c.
6	Highland.....	175	100	100	40 to 50	1½	8c.
7	Madison.....	160	130	100	49	2½	12c.
8	Morrow.....	150 to 180	110 to 175	90 to 150	30 to 50	65c. to \$2½	5 to 7c.
8	Richland.....	125	100	110	45	2½	*\$5
8	Marion.....	200	100 to 200	75 to 150	30 to 60	1 to 3	*\$3 to \$25
8	Richland.....	150	125	150	50	2	7 to 9c.
9	Sandusky.....	150	100	125	35	-----	*\$5
9	Erie.....	150	100 to 150	100 to 150	30 to 75	2	*\$2 40
9	Crawford.....	150 to 200	100 to 200	60 to 110	35 to 45	2 to 3	7 to 8c.
9	Seneca.....	-----	125 to 150	150	45	1½	6 to 8c.
9	Huron.....	150	100	100	50	1½	8c.
11	Adams.....	140	180	200	60	2½ to 3	8 to 12c.
19	Mahoning.....	150 to 200	200	150 to 200	30 to 75	2 to 7	10 to 12c.
19	Trumbull.....	150 to 200	150 to 200	100 to 200	60 to 100	3	10c.
	Average.....	\$151 37	\$128 95	\$127 14	\$47 92	\$2 64	8½c.

* Each.

KENTUCKY.

Area, 24,115,200 acres. Population in 1870, 1,321,011.

Can land be purchased or rented in your district suitable for small farms on favorable terms?

* Ballard, Union, Fulton, Livingston, Crittenden, Ohio, Daviess, Hopkins, Christian, Russell, Todd, Logan, Warren, Hardin, Meade, Marion, Nelson, McCracken, Henry, Grant, Mercer, Bracken, Jessamine, Owsley and Wolf, Knox and Clay, Mason, Johnson, Floyd, and Carter: it can. Allen: land can be purchased or rented. Carroll and Trimble: grass or grain farms can be purchased at from \$20 to \$30 per acre; hay farms at from \$60 to \$80 per acre. Boone: prices high. Fayette: very little. Boyd: on tolerably favorable terms. Greenup: some might be had.

What is the price per acre of small improved farms? State what proportion has been under cultivation, how much is fenced, and the kind of buildings.

Ballard: from \$12 to \$15 per acre, comfortable buildings. Union: \$10 to \$40 per acre, one-half under cultivation, with comfortable log or frame buildings. Fulton: \$10 to \$50 per acre; small frame or log buildings; gardens and cultivated lands under rail fence. Livingston and Crittenden: \$5 to \$10 per acre, small proportion under cultivation;

* Names of counties from which returns have been received.

ordinary wood or log buildings. Trigg: \$5 to \$40, three-fourths under cultivation; wooden buildings. Ohio: \$10 to \$12, one-fourth fenced and under cultivation; log or frame buildings; cost of clearing much lessened if timber is saved and deadened, and suffered to decay on the land. Daviess: \$20 to \$25, one-half to three-quarters under cultivation; cheap log buildings. Hopkins: small improved farms can be bought at from \$8 to \$20 per acre. Christian: from \$5 to \$50, about one-half in cultivation; plain log buildings. Russell: \$5 per acre, one-fourth under fence; generally hewed-log buildings. Todd: \$20 to \$50; a number of large farms, of good land, can be bought and divided into small farms. Logan: from \$5 to \$60; about one-half of the land in this county is rich; farms large, formerly cultivated by slave labor; the other half comparatively poor, small farms, formerly cultivated by free labor. Warren: \$8 to \$75, half under cultivation; all tillable land fenced; buildings common. Barren: no small improved farms in this division. Allen: from \$3 to \$10 per acre for small farms on uplands; poor, and in bad condition. Hardin: from \$4 to \$50, from one-half to two-thirds cleared; buildings on cheap land very common, on the best land, good. Meade: about \$10 per acre, about one-third under cultivation, all fenced; framed cottages, or hewed-log houses. Marion: \$2 to \$15, two-thirds under cultivation; frame and log buildings. Nelson: \$3 to \$6. Jefferson: small improved farms from 20 to 50 acres, all under cultivation and fenced, with necessary buildings, lying from four to six miles from Louisville, can be purchased at from \$125 to \$400 an acre; at a greater distance the farms are larger and lower in price. McCracken: farms of from 40 to 80 acres, under cultivation and fenced, can be bought at from \$15 to \$25 per acre; buildings generally small. Henry: from \$10 to \$100, about one-half under cultivation; nearly all fenced; some good buildings, but mostly poor. Carroll and Trimble: small hill farms from \$20 to \$30 per acre; the river-bottom farms from \$60 to 80; about three-fourths under cultivation, three-fifths under fence; common wooden buildings. Grant: \$15 to \$50, according to location and quality of land; from one-third to three-fourths fenced and under cultivation; log and frame buildings. Mercer: \$25 to 30; two-thirds under cultivation and fenced; buildings common. Boone: \$30 to \$80; all under fence; nearly all cultivated. Bracken: \$20 to \$25; one-third under cultivation; buildings comfortable. Clarke: from \$15 to \$100. Fayette: \$60 to \$150; nearly all in grass or cultivation; all fenced; buildings, frame and brick, some few of stone. Jessamine: from \$30 to \$125; generally one-third under cultivation, the rest in grass; all fenced; buildings from fine to ordinary. Bourbon: \$80 to \$150; all fenced and under cultivation; buildings generally good. Owsley and Wolfe: \$5; wooden buildings. Mason: \$60 to \$75; the greater portion under cultivation and inclosed; buildings and improvements generally above the average. Boyd: river bottom \$50 to \$100; five to ten miles from the river, hilly land averages \$10. Fleming: \$50, three-fourths under cultivation; all fenced; generally frame buildings. Johnson and Floyd: \$5 to \$10, according to location. Carter: average, \$5. Greenup: small farms at about \$10 per acre, about one-third under fence; buildings generally log.

What is the price per acre of unimproved land, what proportion is cleared, and how much, if any, is fenced?

Ballard: from \$10 to \$15 per acre; neither cleared nor fenced. Union: \$6 to \$20. Fulton: \$5 to \$20; no fencing. Livingston and Crittenden: \$5 to \$10; one-sixth cleared, one-twentieth fenced. Trigg: \$5 to \$40. Ohio: \$5 to \$10; no improvements; clearing and fencing

cost about \$10 per acre. Daviess: \$10 to \$15. Hopkins: \$2 to \$10. Christian: from \$5 to \$40; one-half cleared, two-thirds fenced. Russell: \$3 to \$5 for uplands; river bottoms \$8 to \$15; from one-fourth to one-half fenced. Todd: very little unimproved good land. Logan: very little difference in the nominal price of improved and unimproved lands. Warren: \$5 to \$50; none cleared or fenced. Barren: from \$5 to \$30; one-third under poor fence. Allen: from \$1 to \$6; uplands, heavy timbered, broken, and poor. Hardin: \$2 to \$10. Meade: \$6 to \$8; none cleared or fenced. Marion: very little for sale that is worth cultivating. Nelson: from \$3 to \$20. Jefferson: \$40 to \$60; all timbered, unimproved, and without fencing. McCracken: \$8 to \$12. Henry: from \$10 to \$50; none cleared; nearly all fenced. Carroll and Trimble: \$10 to \$15. Grant: \$8 to \$15; from one-third to one-half cleared and fenced. Mercer and Boone: no unimproved land for sale. Bracken: \$15. Clarke: no unimproved land in the county. Jessamine: we have no unimproved land. Bourbon: none unimproved. Owsley and Wolfe: very little. Knox and Clay: from 50 cents to \$5; broken and rugged mountain land. Boyd: \$3 to \$6. Fleming: \$1 to \$2; mostly fenced. Johnson and Floyd: \$1 to \$5. Carter: average \$3; very little cleared; not much under fence. Greenup: from 50 cents up to \$15; about one-fifth cleared and fenced.

What is the yearly rent of small improved farms? If rented on shares, what share does the owner receive? Does the latter provide stock, implements, or seeds?

Ballard: from \$3 to \$5 per acre; if on shares, owner receives one-half, if he furnishes stock, &c.; otherwise, one-third. Union: \$2 50 to \$3. Fulton: the same. Livingston and Crittenden: from \$1 to \$3. Trigg: about \$3. Ohio: \$4. Daviess: \$5 to \$8. Hopkins: \$25 to \$150. Christian: \$2 to \$5. Russell and Todd: \$3 to \$4. Logan: \$4 to \$6. Warren: \$2 to \$5. In Russell, Allen, Nelson, and most of the above counties the owner receives one-half of the crop if he furnish the stock, &c.; otherwise, one-third; two-thirds according to agreement. Barren: one-third of product; owner provides nothing. Hardin: \$100 to \$150. Meade, \$2. Marion: from \$150 to \$300, on shares; owner receives two-thirds if he furnishes stock, implements, &c., and one-half if he furnishes nothing. Nelson: owner one-third, and furnishes nothing; otherwise, one-half. Jefferson: \$10 to \$18; shares, owner one-third, and furnishes nothing. McCracken: \$2. Henry: \$4; owner one-half, and provides nothing. Carroll and Trimble: about \$5; on shares, one-half; tenant provides stock. Grant: from \$2 50 to \$4 and \$5, and in some places from \$5 to \$7; on shares, from one-third to one-half the crop according as owner furnishes or otherwise. Mercer: \$4 to \$6; shares, one-half the crop; renter furnishes everything. Boone: from \$125 to \$300; shares as in Mercer County. Bracken: one-third of the product. Clarke: \$3 to \$5; shares, one-half. Fayette: from \$6 to \$10; none rented on shares. Jessamine: \$5 for first-class lands; shares, from one-third to one-half. Bourbon: from \$3 to \$8; or one-half the product. Owsley, Clay, Knox, and Wolfe: one-third of the product. Mason: average \$5; shares, one-half. Boyd: owner receives one-third, ten miles from the river; on river bottoms, one-half; renter finds all. Fleming: \$5; shares, one-half. Johnson and Floyd: one-third, and provides nothing; otherwise, one-half. Carter: one-third of the crop. Greenup: about \$3; on shares, one-half, the renter furnishing his own teams and implements.

What are the chief articles of production, and what are the present prices of two or three of them?

Articles of production.	Prices.	Counties.
Wheat.....per bushel..	\$0 75 to \$1 00	Marion, Daviess, Grant.
Do.....do.....	1 00	Livingston, Crittenden, Trigg, Christian, Todd, Allen, Hardin, Meade, Nelson, Henry, Mercer, Clarke, Bourbon, Boyd, Daviess, Fleming, Johnson, Floyd, Ohio.
Do.....do.....	1 15 to 1 20	Jessamine, Barren, Greenup.
Do.....do.....	1 25	Union, Fulton, Ohio, Warren, Knox, Clay, Fayette.
Do.....do.....	1 40 to 1 50	Bracken, Russell.
Corn.....do.....	40	Daviess, Trigg, Livingston, Crittenden.
Do.....do.....	50	Fulton, Barren, Clarke, Jessamine, Hopkins, Ohio, Boyd, Johnson, Floyd, Carter, Ballard, Greenup.
Do.....do.....	60	Christian, Todd, Logan, McCracken, Carroll, Trimble, Mercer, Bracken, Knox, Meade, Clay.
Do.....do.....	65	Mason, Fleming.
Do.....do.....	70	Union, Daviess, Jefferson, Fayette.
Do.....do.....	75	Warren, Ohio, Russell, Nelson, Henry, Marion.
Do.....do.....	80 to 90	Allen, Boone.
Oats.....do.....	35 to 40	Boyd, Johnson, Floyd, Carter.
Do.....do.....	45 to 50	Meade, Nelson, Henry, Boone.
Do.....do.....	60	Ohio, Jefferson.
Rye.....do.....	75	Meade, Marion, Clarke, Bourbon.
Do.....do.....	80 to 90	Fleming, Henry.
Hay.....per ton..	10 00 to 12 00	Ohio, Boyd, Union.
Do.....do.....	16	Carroll, Trimble.
Do.....do.....	18 00 to 20 00	Hardin, Nelson.
Tobacco...per hundred..	3 00 to 10 00	Allen, Livingston, Crittenden.
Do.....do.....	5 00 to 8 00	Carroll, Ballard, Trimble.
Do.....do.....	5 00 to 10 00	Logan, Warren, Ohio.
Do.....do.....	6 00	Russell.
Do.....do.....	8 00 to 10 00	Barren, Union.
Do.....do.....	8 00 to 12 00	McCracken.
Do.....do.....	10 00	Christian, Bracken, Todd.
Do.....do.....	10 00 to 15 00	Hopkins.
Do.....do.....	14 00 to 17 00	Mason.

What is the distance to a market town, a railroad station, or a steamboat landing?

Ballard: 8 miles to Cairo; 25 miles to Paducah, at the mouth of the Tennessee River. Union: situated on the Ohio River. Fulton: the Mississippi River traverses one side of the county. Two railroads run through the county. No place in it more than 5 miles from depot or landing. Livingston and Crittenden: not more than 8 miles to river from any point. Trigg: 9 miles from steamboat landing, 20 miles from railroad station, and 40 miles from market town. Ohio: average distance to steamboat landing from all parts of the county is 10 miles; a railroad is now being completed through the center of the county. Daviess: steamboat daily, and railroad nearly completed; average distance 8 miles from all parts of the county. Hopkins: Madisonville, the county seat, is centrally located, and has a railroad through it. Christian: railroad runs through the county; no part of it more than 20 miles distant. Russell: 4 miles to a steamboat landing, 60 miles to railroad station. Todd: about 8 miles from Elkton. Logan: railroad passes through the entire county. Warren: all three in and at the town

of Bowling Green. Allen: 25 miles to railroad station. Hardin: one railroad through the county in operation, another soon to be completed. Meade: nowhere over 10 miles. Marion: none over 7 miles. Nelson: 40 miles to Louisville and Bardstown Railroad, near center of county. Jefferson: the Ohio River forms the northern boundary of this county, and two railroads pass directly through it. McCracken: this city, Paducah, has 13,000 inhabitants; average distance to it from all parts of the county about 10 miles; there are many smaller towns. Henry: two railroads running through the county; the Kentucky River forms the eastern boundary, and is navigable. Carroll and Trimble: no resident in this division is more than 6 miles from either railroad station or steamboat landing. Grant: nearest market towns Cincinnati and Covington; distance 37 miles; nearest railroad station 11 miles. Mercer: railroad station 14 miles; steamboat landing 9 miles. Boone: 16 miles. Bracken: about 15 miles from most remote point. Clarke: none in the county. Fayette: 14 miles to market town from farthest point. Jessamine: average distance to railroad 6 miles. Bourbon: Paris is a railroad town; turnpike roads run in from all quarters. Owsley and Wolfe: distance not far. Knox and Clay: 60 miles to railroad. Mason: the most distant point 15 miles. Boyd: this county borders on the Ohio River. Fleming: 17 miles to Maysville, which is the nearest steamboat landing and market town. Johnson and Floyd: navigable river through the county, from 1 to 10 miles distant. Carter: 10 miles to Coalton. Greenup: steamboat conveyance daily; good market in county town.

What is the general quality of land, and the kind of timber?

Ballard: good barrens; timber of every description; oak, hickory, walnut, &c. Union: excellent land and good timber for all purposes; oak, poplar, walnut, and locust. Fulton: cypress, oak, ash, poplar, walnut, in abundance; soil almost uniformly rich and productive; alluvial deposits in the bottoms, a rich deposit on yellow clay in the hills. Livingston and Crittenden: second rate; oak, hickory, poplar. Trigg: medium; some fine and fertile, and some very poor; some abound in iron ore; timber, oak, sugar-tree, poplar, &c. Ohio: medium quality; timber, oak, poplar, walnut, chestnut, gum, elm, hickory, sassafras, sycamore, beech, &c. Daviess: good; timber—poplar, hickory, black-walnut, and oak. Hopkins: good land, finely timbered; white and black-oak, poplar, walnut, sugar-maple, &c. Christian: about one-half of the county is as good as any in the United States, with only a moderate supply of timber. Russell: black and white oak, poplar, hickory, and chestnut. Todd: the southern portion of this county is very fine land; the north half is broken, but a very fine fruit country, and well timbered. Logan: from very good to indifferent; timber—oak, poplar, walnut, and hickory. Warren: from third to first quality; surface soil, vegetable loam; subsoil, red clay, through which nothing passes; oak, chestnut, ash, walnut, hickory, poplar, or tulip, cedar, cherry, birch, &c. Barren: soil varied; first, second, and third rate; timber all kinds. Allen: land poor and broken; timber—good and plentiful—oak, poplar, chestnut, hickory, ash, beech, maple, walnut, and cherry. Hardin: land of rather poor quality, but good for fruit; oak, hickory, walnut, &c. Meade: good land; oak and hickory. Marion: limestone; oak and poplar chiefly. Nelson: every grade, from \$2 to \$75 per acre; poplar, oak, hickory, sugar-tree, walnut, beech, with other varieties. Jefferson: the general quality of land is good; poplar, ash, sugar-tree, hickory, walnut, white, black, and red oak. McCracken: the land is a light loam of medium depth, underlaid with limestone; timber mostly oak and hickory. Henry: we have fine limestone land; walnut, ash,

sugar-tree, beech, poplar, and oak. Carroll and Trimble: hill land is a thin clay; bottom land, rich, sandy soil; timber embraces poplar, oak, sugar-tree, ash, and black walnut. Grant: land of medium quality; beech, ash, walnut, poplar, oak, hickory, and sugar-tree. Mercer: soil generally good; one-half first quality; one-half of second quality; timber—oak, ash, walnut, hickory, gum, cherry, and locust. Boone: land thin; beech timber. Bracken: land good; timber—oak, walnut, poplar, and sugar-tree. Clarke: about one-third of the land is equal to any in Kentucky for productiveness; the rest is of various grades of quality; timber—oak, walnut, sugar-maple, and hickory, principally. Fayette: land considered the best in the world; limestone bottom; walnut, sugar-maple, ash, and oak. Jessamine: land good; blue grass; timber of great variety; maple, ash, walnut, hickory, oak, poplar, locust, &c. Bourbon: same as the preceding. Owsley and Wolfe: white-oak, poplar, and pine. Knox and Clay: the land varies from good to indifferent, broken and level, thin and rich; timber in abundance, almost all kinds. Mason: land generally good, being blue limestone; timber—hickory, walnut, oak, &c. Boyd: river bottom very good, hilly land generally thin. Fleming: sugar-maple and oak; land rather thin in this county generally. Johnson and Floyd: the land is sandy and very productive; timber is principally poplar and beech. Carter: extra minerals, and tolerably good for farming; black-oak, poplar, pine, hemlock, sugar-maple. Greenup: land thin; timber—poplar, oak, (black, white, and red,) beech, sugar-maple, chestnut, &c.

For what kind of labor is there a demand?

Ballard: all kinds, particularly farm labor. Union: farm hands and mechanics, and coal miners. Fulton: farm hands and household servants. Livingston, Crittenden, Ohio, Warren, Barren, Hardin, Mercer, and Carter: all kinds. Trigg: farm labor and house servants. Daviess: the same. Hopkins: all kinds, farm labor particularly, also coal miners. Christian: all kinds of laborers are sought for at remunerative prices, but principally agricultural laborers and house builders. Russell, Todd, Allen, Meade, Nelson, Henry, Grant, Boone, Fayette, Knox, and Clay: farm labor is most in demand. Logan: farm hands and female house servants. Marion: good, *reliable* farm labor. Jefferson: female house labor, and in some localities, male farm laborers. McCracken: farm and all kinds of common labor. Carroll and Trimble: farm labor and in-door labor are in good demand. Bracken: farm hands and mechanics. Clarke: farm labor for males; house labor for females; both kinds greatly in demand. Jessamine: mostly farm laborers, but mechanics do well. Bourbon: farm hands, cooks, &c. Owsley and Wolfe: for farming and coal mining. Mason: *active* farm labor. Boyd: miners, furnace hands, and farm laborers. Fleming: mostly farm labor, and the building of turnpike roads and railroads. Johnson and Floyd: farm and mechanical labor, and lumbermen. Greenup: furnace-men, wood-choppers, ore-diggers, teamsters, colliers, and other laborers, termed gin hands.

What mills or factories, if any, are in operation or in progress requiring skilled labor?

Ballard: water-mills and steam-mills for grinding grain and sawing lumber. Union: flouring-mills, distilleries, coal-mines, saw-mills, planing-mills, &c. Fulton: a steam wagon and agricultural-implement factory, steam-planing and furniture factory, blacksmithing, &c. Livingston, Crittenden, Todd, Barren, Allen, Marion, Carroll, Trimble, Bourbon, Knox, Clay, Johnson, Floyd, and Carter: none at present.

Trigg: rolling-mill and one furnace. Ohio: ordinary grist and saw mills. Daviess: two flour-mills, two planing-mills, one foundery, one machine-shop, one woolen factory, eight tobacco-stemmers, ten distilleries. Hopkins: no mills except saw and grist mills; manufactories much needed, a good location for them. Christian: flour-mills, black-smiths and wagon-makers, one planing-mill. Russell: flour-mills and saw-mills. Logan: several good flour-mills, and woolen factories. Warren: seven flour-mills, twelve lumber-mills, one planing-mill, one woolen-mill, eighteen looms, two machine-shops, one foundery, two broom factories, five brick-yards, where three millions of bricks were manufactured in 1869; one hundred houses erected in 1869; population, 6,000. Hardin: we have no factories, but need them badly; have good flour-mills; want laborers and mechanics, everything in fact except politics and whisky. Meade: cotton factory, woolen factory, flour-mills, distilleries, &c. Nelson: ordinary corn and flour mills. Jefferson: are several flour-mills doing a local business; a number of saw-mills; one small woolen factory, and one tobacco manufactory. McCracken: one large rolling-mill, several flour-mills, several carriage, wagon, and plow factories, planing-mill, and several tobacco and cigar factories. Henry: only one factory in the county, and that a woolen factory at Eminence. Grant: only a few flour-mills and saw-mills, and some two or three wool-carding factories. Mercer: flour and saw mills, about fifteen altogether. Boone: three flour-mills and one distillery. Bracken: saw-mills and flour-mills. Fayette: two woolen-mills, one cotton-mill, several bagging manufactories. Jessamine: we have none except flour-mills and distilleries. Mason: one cotton factory, two woolen factories, two plow factories, two carriage factories. Boyd: one iron furnace, making from forty to forty-eight tons of iron per day. Fleming: a number of steam saw-mills. Greenup: two flour-mills, one saw-mill, and a number of furnaces.

Are there in your vicinity any railroads or other public works in progress requiring common labor. If so, how far distant?

Ballard: we have some railroads in contemplation in this county, and several gravel roads to be made. Livingston and Crittenden: fifteen miles distant. Trigg: twenty miles. Ohio: one in progress. Daviess: one in progress. Hopkins: one to be built this year; labor in demand. Christian: one railroad in process of construction, and several turn-pikes to be made. Warren: turnpikes are building; also water-works and gas-works in the town. Hardin: one railroad in progress, and labor in demand. Meade: none nearer than 25 miles. Marion: no railroads; turnpikes are building. Jefferson: one railroad in progress. McCracken: two railroads and several gravel roads in progress. Mercer: railroads in contemplation, and a number of turnpikes in progress. Owsley and Wolfe: 25 miles distant. Mason: one at a distance of 45 miles. Boyd: one railroad terminates at Ashland, distant 5 miles, with a fair prospect of another soon to be constructed. Fleming: six miles from Flemingsburg there is a railroad in progress. Carter: 9 miles to railroad. Greenup: one railroad comes to our county town, and will be extended.

If many foreign-born workmen are employed in your district, please give the preponderating nationality.

Ballard: very few foreigners, mostly German and Irish. Union, Daviess, Meade, Jefferson, Carroll, Trimble, and Boyd: German. Fulton: many Germans, and they are rapidly increasing, in our towns especially, and a few Irish. Livingston, Clarke, Trigg, Marion, Mercer, Boone, Fleming, Carter, and Crittenden: Irish. Ohio: Irish on the railroads,

and some German mechanics and farmers. Hopkins: a few Irish and Germans. Christian: Irish; quite a number employed on the railroad. Logan: not many; Irish are the most numerous; a few Germans have settled here lately. Hardin: in towns mostly Germans; on the railroads, Irish; not many foreigners in the county. Nelson: Irish, with a few Germans. McCracken: Germans largely preponderate here, although we have many French and Irish. Henry: a few Irish on the railroads. Grant: a few Germans and Irish. Bracken: Germans are cultivating vineyards. Fayette: the Irish preponderate. Jessamine: mostly Irish, some Germans. Bourbon: none in Bourbon just now, but will be shortly, when work is commenced on the railroads. Owsley and Wolfe: Welsh, Dutch, and Irish. Mason: Irish; also many Germans. Johnson and Floyd: very few foreigners in this part of the country. Greenup: very few German and Irish.

Please state any advantages which your district can offer to laborers, mechanics, or small farmers. Is there much land, of good quality and well watered, yet unoccupied?

Ballard: a large quantity of land unoccupied. Union: a great quantity of good land yet to be brought into cultivation, and an excellent home market for all products of the farm; good opening for almost every kind of manufactory; abundance of stone coal; communication by river and rail convenient. Fulton: abundance of land of best quality now ready for occupants. Any man who is willing to work can find occupation at good wages. Livingston and Crittenden: considerable land unoccupied; water can be easily obtained. Trigg: a demand for some good mechanics and house servants, to whom good wages are offered; not much land unoccupied. Ohio: a large amount of good, well-watered land unoccupied, and cheap, and the railroad will greatly advance all business; local taxes low. Daviess: a great demand for laborers and mechanics; a large amount of unimproved land of good quality, and well watered. Hopkins: we have fine land for farmers and fruit-growers, and the finest coal-fields in the western country. Christian: much of the land is in a coal region, with a plentiful supply of good timber, and is well adapted to fruit and grass growing. Russell: good carpenters command good prices. We have some of the finest water-power in the whole State. Todd: an excellent fruit-growing region of country. Warren: there is a great demand for all kinds of labor, and good prices are paid; the land is rich and productive, and there is a large area unoccupied, with a fine, healthy climate. Barren: the unoccupied land is poor. Allen: good farmers and some good wheelwrights would do well here. Hardin: a good field of labor is open for common laborers, mechanics, and small farmers; a large proportion of the land is good, the price remarkably low, having advanced but very little since 1860. Meade: a large quantity of good land yet unoccupied. Marion: good reliable farm labor is much needed. Nelson: a good farming country. Jefferson: no peculiar advantages to the class of labor mentioned can be offered. McCracken: plenty of work, and good pay for common laborers; plenty of land that will yield a good return for the labor of farmers. Henry: nearly all the land is occupied by the owners; farm hands are greatly needed. Carroll and Trimble: there is very little land of good quality unoccupied. Grant: not much unoccupied land, but a considerable quantity for sale. Mercer: employment of various kinds can be obtained at fair wages. Bracken: the price of leaf tobacco has been very high for many years past, and our soil is peculiarly adapted to its production, the finest quality being produced; land of good quality yet unoccupied. Clarke: no land unoccu-

pied ; laborers for the farm and females for housework are very greatly in demand. Jessamine : no lands unoccupied ; our farmers are doing well, and many farms can be bought on reasonable terms ; all kinds of mechanics and industrious men can do well here. Owsley and Wolfe : much good land unoccupied, which can be obtained upon reasonable terms. Knox and Clay : a large quantity of land unoccupied, but it is rough land. Mason : a demand for labor of all kinds throughout the entire county ; no land of good quality unoccupied. Boyd and Fleming : laborers, miners, and mechanics can readily find employment at good wages. Johnson and Floyd : small farmers and mechanics can do well here. Carter : this is a mineral region, and great advantages are afforded to industrious and enterprising men. Greenup : not much good land, but a large quantity of hilly land unoccupied ; soil thin, well timbered, generally well watered.

What are the prices of farm stock, sound and in good condition ?

Districts.	Counties.	Working oxen, per pair.	Working horses, each.	Working mules, each.	Milch cows, each.	Sheep, each.	Hogs, per pound.
1	Ballard	\$100	\$75 to 100	\$125 to 175	\$25	\$2	* 2c
1	Trigg	\$100 to 120	150	175	35	2	† 10
1	McCracken	50	75	100	25	3	†
1	Livingston and Crittenden.	100	100	125	25	1½	5c.
1	Fulton	50 to 100	75 to 200	75 to 200	\$10 to 100	\$2 to 10	‡ 25 to 20
1	Union	50 to 75	125 to 200	125 to 200	25 to 50	1½ to 3	5c.
2	Ohio	125	125	150	30	2	6c.
2	Owensboro	75 to 150	100	150	40 to 60	2½ to 4	§ 24 to 6
2	Hopkins	50 to 100	100 to 200	100 to 200	25 to 50	1½ to 3	§ 24 to 6
2	Christian	100 to 150	75 to 150	100 to 200	20 to 60	2 to 4	8c.
2	Davies	75 to 150	90	125	40 to 60	1½ to 2½	7c.
3	Russell	80 to 150	75 to 125	80 to 150	25 to 40	2 to 3	* 25
3	Todd	75 to 100	125	150	30	2½	6c.
3	Logan	75	100	100	25	2	6c.
3	Warren	80 to 150	50 to 150	75 to 200	25 to 60	2 to 4	8½ to 9½c.
3	Barren	120	150 to 300	150 to 200	25 to 60	3	† 20
3	Allen	75	100	125	30	2	10c.
4	Kentucky	100	100 to 125	125 to 150	30 to 50	1½ to 5	† 21 to 20
4	Meade	75	80 to 100	100 to 125	30	2½	† 10 to 15
4	Marion	75 to 150	75 to 100	100	25 to 65	2½ to 3½	† 5 to 12
4	Nelson	100 to 200	50 to 150	75 to 150	40 to 75	1½ to 6	† 5 to 3
5	Jefferson	90 to 120	75 to 100	125 to 165	45 to 75	2½ to 5	10c.
5	Henry and Oldham	150	50 to 125	100 to 200	40 to 75	2 to 10	8c.
5	Henry	150	100 to 150	125 to 150	50	3 to 10	9c.
6	Carroll	150	100	150	40 to 60	4	* 20
6	Grant	125 to 200	50 to 100	75 to 125	35 to 80	2 to 5	8c.
6	Boone	140	75 to 150	100 to 250	35 to 80	3½	† 24 to 15
6	Bracken	150	75 to 200	100 to 150	30 to 60	2 to 3	† 3 to 5
7	Mercer	100 to 150	60 to 125	100 to 150	50 to 75	3	* 28
7	Clarke	150 to 250	80 to 125	150 to 200	40 to 100	2 to 5	† 5
7	Fayette	150	100	150	80	10	† 3
7	Jessamine	150	50 to 150	150	40 to 80	3 to 5	8c.
7	Bourbon	150 to 250	150	150 to 200	40 to 100	4 to 10	8c.
8	Owsley	100	75 to 100	75 to 100	40	3	* 25
8	Knox and Clay	100	100	100	25	1½	* 5
9	Mason	75 to 125	70 to 125	125 to 150	30 to 60	1½ to 2½	5 to 8c.
9	Boyd	50 to 100	50 to 100	50 to 100	25 to 50	2 to 5	† 23 to 6
9	Johnson	60 to 100	60 to 100	75 to 125	15 to 30	2½	† 2 to 10
9	Carter	100	75	100	50	3	9c.
9	Greenup	75 to 100	75 to 175	100 to 175	20 to 40	5	4c.
9	Fleming	100	100	120	50	5	† 8
	Average	\$111 02	\$110 73	\$131 82	\$44	\$3 09	7½c.

* Per hundred-weight.

† Each.

‡ Fine stock, each.

§ Or 8 to 9c., gross weight.

INDIANA.

Area, 21,637,760 acres. Population in 1870, 1,673,943.

Can land be purchased or rented in your district, suitable for small farms, on favorable terms?

* Perry, Crawford, Scott, Clarke, Floyd, Harrison, Washington, Switzerland, Bartholomew, Jennings, Jefferson, Franklin, Ripley, Delaware, Wayne, Johnson, Greene, Sullivan, Vigo, Carroll, Lake, Newton, Pulaski, Boone, Montgomery, Miami, Fulton, White, Marshall, De Kalb, Steuben, Elkhart, Monroe, La Grange, Howard, and Blackford: it can. Rush: rents and prices high. Shelby: on fair terms. Morgan: yes; bottom lands can be rented, and uplands can be bought at cheap rates. La Porte and Fountain: a small quantity on fair terms. St. Joseph: yes, to a limited extent; the best of the land, however, is in the hands of small farmers, and is not for sale or rent.

What is the price per acre of small improved farms? State what proportion has been under cultivation, how much is fenced, and the kind of buildings.

Crawford: from \$4 to \$8 per acre, one-third under cultivation; generally log and frame buildings. Scott: from \$10 to \$20; with good tenant house, from 40 to 50 acres cleared, the rest in timber. Clarke: from \$20 to \$200; buildings indifferent. Floyd: average, \$15; from one-third to one-half improved. Harrison: \$25 to \$40; three-fifths to four-fifths under cultivation; moderately cheap buildings. Washington: \$20 to \$40; about one-half under cultivation; nearly all fenced; frame and brick houses. Monroe: within a range of 10 miles, from \$15 to \$100; from one-half to three-fourths under cultivation; generally all fenced; the higher-priced have good two-story frame or brick buildings; good fruit. Switzerland: river land, \$100 to \$120; hill and interior land \$50 to \$60; nearly all fenced; about one-half under cultivation; buildings moderately good. Bartholomew: average price, \$35; two-thirds under cultivation; nearly all fenced; wooden frame buildings. Jennings: average, \$20; about one-half under cultivation; four-fifths under fence; mostly wooden buildings. Jefferson: \$20. Franklin: \$25; three-fourths under cultivation; buildings, frame and brick. Rush: from \$60 to \$90; two-thirds to three-fourths under cultivation, with comfortable farm buildings. Ripley: \$10 to \$50; one-fourth improved; small frame and log buildings. Delaware: \$30; one-half under cultivation; three-fourths fenced; buildings, wood and brick. Wayne: from \$30 upward; three-fourths under cultivation; all fenced; good buildings, brick and frame. Johnson: average, \$60; about three-fifths under cultivation; nearly all under fence; good frame buildings. Shelby: from \$35 to \$50; one-half under cultivation; all fenced; hewed-log and frame buildings. Morgan: small upland farms from \$10 to \$30; about one-half under cultivation; two-thirds fenced; buildings cheap but comfortable. Hendricks: \$75 to \$150; one-half cultivated, balance in grass; all under fence; small frame buildings. Greene: \$25 to \$40. Sullivan: from \$25 to \$100; from one-third to two-thirds under cultivation; all fenced; good buildings. Parke: \$10 to \$60; one-half to two-thirds under cultivation; all fenced; log and frame buildings. Vigo: from \$20 to \$200. Putnam: \$40 to \$70; nearly all fenced and under cultivation; buildings generally comfortable. Carroll: from \$10 to \$50; about three-fifths under cultivation; brick, frame, and concrete buildings. Vermillion: \$30; two-fifths to one-half cleared; common frame buildings. Lake: from \$20 to \$50; mostly under cultivation. New-

* Names of counties from which returns have been received.

ton : from \$10 to \$25; one-half under cultivation, and fenced; buildings tolerably fair. Pulaski: from \$5 to \$20; buildings and fences poor. La Porte: from \$20 to \$150, according to quality and location; more than one-half under cultivation; buildings moderately good. Fountain: from \$30 to \$60; about one-half under cultivation, and fenced; buildings ordinary. Boone: \$20 to \$30; one-fifth under cultivation; one-fourth fenced; buildings ordinary. Montgomery: from \$30 to \$100; from one-half to two-thirds under cultivation; nearly all fenced; comfortable buildings. Miami: from \$30 to \$75; one-half cleared and under fence, with good buildings. St. Joseph: near market towns, from \$75 to \$125; at a greater distance, from \$20 to \$50; one-half to two-thirds cleared, with tolerably good fences and buildings. Fulton: from \$15 to \$50; from one-fourth to three-fourths under cultivation and fenced; buildings moderately good. White: \$15 to \$40; nearly all improved, and under fence; comfortable buildings. Marshall: about \$40; one-third under cultivation; all fenced; buildings, good log and frame. De Kalb: average, \$50; more than one-half under cultivation; reasonably good buildings. Steuben: average, \$30; one-third under cultivation; good rail fences; frame buildings. Elkhart: from \$25 to \$100, according to quality and location; about one-third under cultivation, and under fence; frame buildings. La Grange: from \$50 to \$75; from one-fourth to three-fourths fenced, and under cultivation; buildings ordinary. Howard: from \$10 to \$40; from one-fourth to one-half under cultivation, and fenced; log or small frame buildings. Blackford: from \$15 to \$35, with, generally, one-half under cultivation, and ordinary buildings. Wabash: from \$30 to \$40; near Wabash City, farms range from \$50 to \$75.

What is the price per acre of unimproved land, what proportion is cleared, and how much, if any, is fenced?

Perry: from \$2 to \$5 per acre. Crawford: from \$3 to \$6; in some localities from \$5 to \$7. Scott: from \$15 to \$30; one-half in a good state of cultivation. Clarke: from \$10 to \$20; generally about one-half under fence, with one-third cleared. Floyd: all partially improved; one-half cleared, two-thirds fenced. Harrison: about \$15; neither fenced nor cleared. Washington: \$18 to \$20; none cleared and none fenced. Monroe: none for sale. Switzerland: \$35 to \$50; nearly all fenced. Bartholomew: from \$15 to \$20; none cleared or fenced. Jennings: from \$10 to \$15; none cleared or fenced. Jefferson: \$10 to \$15; half cleared and fenced. Franklin: the lands in this division are mostly improved. Rush: from \$40 to \$60; one-third cleared and fenced; if the timber is good it is worth more. Ripley: \$5 to \$30; all timber. Delaware: \$18; very little cleared and not much fenced. Wayne: no unimproved land. Johnson: average, \$45; about two-fifths cleared, nearly all fenced. Shelby: but little for sale separate from improvements, which would rate from \$30 to \$45 per acre. Morgan: from \$5 to \$25 for unimproved uplands; bottom lands all improved. Hendricks: from \$25 to \$150; mostly fenced; timbered land is increasing in value since our railroad was finished. Greene: wild land from \$10 to \$15. Sullivan: from \$20 to \$30; one-third cleared; all fenced. Parke: \$10 to \$20; wholly unimproved. Vigo: about \$20, 10 miles from town. Putnam: no unimproved land; about one-half of all the land is cleared. In the better portions of the county over one-half is cleared. Carroll: \$25; about three-fifths cleared and fenced. There is an increasing demand for unimproved timber land. Vermillion: \$15 to \$20. Lake and Newton: from \$5 to \$30 for unimproved land, prairie or timber. Pulaski: \$5 to \$20. La Porte: there are three kinds of land; marsh from \$2 to \$10, dry oak land from \$10 to \$25, and heavy timber land from

\$30 to \$100. Fountain: \$8 to \$15. Boone: \$5 to \$10; one-twentieth cleared and fenced. Montgomery: unimproved land sells for the same as the improved, the timber being valuable. Two-thirds of the land is cleared and fenced; price from \$30 to \$100. Miami: from \$10 to \$15. St. Joseph: the unimproved land is mostly marshy or wet land capable of improvement by draining, and can be bought at from \$3 to \$10. Fulton: \$10 to \$30. White: \$3 to \$15; prairie and barrens; none fenced. Marshall: \$10 to \$40; mostly timbered land; none fenced. De Kalb: \$50 with or without improvements and fences. Steuben: \$20. Elkhart: from \$10 to \$60. La Grange: low land from \$10 to \$35; none fenced nor cleared. Dry heavy timbered land very valuable, from \$40 to \$125. Howard: \$8 to \$15 per acre; none fenced. Blackford: from \$10 to \$25, according to the location of the land and the quality of the timber. Wabash: \$15 to \$40.

What is the yearly rent of small improved farms? If rented on shares, what share does the owner receive? Does the latter provide stock, implements, or seeds?

Perry: owner gets two-fifths, furnishes nothing; one-half if he furnishes stock, &c.; on poorer land, one-third. Crawford: from \$1 to \$5 per acre; on shares, owner gets one-third of the crop; and if he furnishes stock, seed, and implements, one-half. Scott: one-third of crop to owner when tenant finds everything, and in some cases one-half. Clarke: shares, one-half the crop. Floyd: \$3 to \$7 per acre; on shares, one-half. Harrison: owner receives one-third; and if he furnish stock, &c., then two-thirds. Washington: about \$1 per acre for rent, or two-thirds the crop, nothing furnished. Monroe: owner furnishing everything, receives two-thirds of the crop. Switzerland: from \$5 to \$6 per acre; on shares, owner receives one-half the crop; renter provides everything. Bartholomew: about \$5; on shares, renter gives two-fifths of crop, and finds seed, implements, &c. Jennings: cash rent from \$3 to \$5; on shares, one-third or one-half, according as one or the other party furnishes teams, seeds, &c. Jefferson: one-third of the crop, tenant providing his own team, seeds, &c. Franklin: owner receives one-half, and tenant furnishes everything. Rush: from \$3 50 to \$5 50; on shares, owner furnishes land and half the seed, and gets one-half the crop when gathered. Ripley: on shares, tenant gets one-half, and furnishes team, seeds, and implements. Delaware: owner receives two-fifths of product, and does not furnish stock, implements, or seeds. Wayne: money rent from \$4 to \$6 per acre; on shares, one-half the crop in the bushel, renter providing stock, implements, and seeds. Johnson: \$4 to \$6, on shares; if owner provides one-half of the implements, stock, seeds, &c., he receives one-half the product. Shelby: \$3 50 to \$5, or one-third to one-half of the crop, the tenant furnishing his own team, stock, and seeds. Morgan: \$4, or one-third of the crop if wheat, one-half if corn, when tenant furnishes seeds, &c. Hendricks: about \$5 per acre; shares, as above. Greene: owner receives half without providing stock, implements, or seeds. Sullivan: from \$3 to \$5, or one-third, and nothing is furnished. Parke: owner receives one-third, furnishing nothing; or one-half, and furnishes team, seeds, &c. Vigo: the same. Putnam: owner receives one-half, and furnishes nothing. Carroll: owner, one-third. Vermillion: \$2 to \$3, or one-third of crop. Lake: \$2 50, on shares; owner one-third; and if he furnish, one-half. Newton: \$2 to \$4, or one-third of crop. Pulaski: from \$1 to \$3, or one-third of product, providing nothing. La Porte: one-half the grain, wheat and oats in the sack, corn in the crib, the renter furnishing everything. Fountain: \$4, or one-third of product; if owner provides stock, implements and seeds, he receives

two-thirds. Boone: \$3, or one-third of crop, furnishing nothing. Montgomery: \$5, or one-half the product, owner providing nothing. Miami: \$3, or one-third the product. St. Joseph: one-third. Fulton: \$4 for the improved portion of the farm, or from one-third to two-fifths of the crop when gathered. White, Marshall, and DeKalb: one-third of the crop, unless owner furnishes team, seeds, &c., when he receives one-half. Steuben: \$2, or one-third the crop. Elkhart: \$2 to \$5. La Grange: from one-third to one-half of the crop; when the owner furnishes implements and seeds he receives three-fifths in the bushel. Howard: \$3, or one-third of the crop, the renter furnishing everything. Blackford: \$2 for the improved part, or one-third of the product. Wabash: one-third, owner furnishing nothing.

What are the chief articles of production, and what are the present prices of two or three of them?

Articles of production.	Prices.	Counties.
Wheat.....per bushel..	\$0 80	White, Steuben.
Do.....do.....	\$0 80 to \$1 00	Montgomery.
Do.....do.....	85	Miami, Fulton.
Do.....do.....	90	Fountain, Crawford, Monroe, Rush, Wabash, Delaware, Shelby, Vermillion, La Porte, Hendricks.
Do.....do.....	90 to \$1 00	Sullivan, Marshall, Floyd, Perry, Vigo, Elkhart, Carroll.
Do.....do.....	1 00	Scott, Harrison, Switzerland, Jennings, Ripley, Morgan, Greene, Putnam, Pulaski, Boone, St. Joseph, De Kalb, La Grange, Howard, Johnson, Washington.
Do.....do.....	1 00 to 1 10	Clarke, Wayne.
Do.....do.....	1 00 to 1 20	Jefferson, Parke.
Corn.....do.....	30	Shelby, Parke.
Do.....do.....	35	Delaware, Johnson, Lake, Fountain, Carroll.
Do.....do.....	40 to 45	Marshall, Hendricks.
Do.....do.....	50	Greene, Newton, Wayne, Washington.
Do.....do.....	60 to 65	Vermillion, Scott, Harrison, Monroe, Morgan, Vigo, Sullivan.
Do.....do.....	70	Miami, Steuben, Howard.
Do.....do.....	75	Crawford, Clarke, Floyd, Jennings, Jefferson, Franklin, Rush, Ripley, Putnam, Pulaski, La Porte, Montgomery, St. Joseph, White, La Grange.
Do.....do.....	80	Boone, De Kalb.
Do.....do.....	90	Elkhart, Wabash.
Oats.....do.....	30 to 35	Fountain, Lake.
Do.....do.....	40	Harrison, Delaware, Newton.
Do.....do.....	45	Crawford, Washington, La Porte, La Grange, Perry.
Do.....do.....	50	Scott, Clarke, Jefferson, Franklin, Ripley, Putnam, Pulaski, Boone, Montgomery.
Do.....do.....	60	Morgan, De Kalb.
Potatoes.....do.....	30	Montgomery, Elkhart, Boone.
Do.....do.....	35	Crawford, La Grange.
Do.....do.....	40	Switzerland, Ripley, Morgan, De Kalb.
Do.....do.....	50	Scott, Clarke, Harrison, Delaware, La Porte.
Do.....do.....	50 to 60	Marshall, Putnam, Fulton.
Do.....do.....	80	Johnson, Hendricks.
Do.....do.....	1 25	Floyd, Shelby.
Hay.....per ton..	8 00	White.
Do.....do.....	10 00	Jennings, Ripley, Boone, Steuben.
Do.....do.....	12 00	Montgomery.
Do.....do.....	15 00	Jefferson.
Do.....do.....	16 00	Switzerland.

What is the distance to a market town, a railroad station, or a steamboat landing?

Perry: this county has six towns on the river. Steamboats can land at nearly all farms until the river gets very low. Crawford: 18 miles of this county borders on the Ohio River. Scott: two railroads running through the county; about 16 miles to a steamboat landing. Clarke: from 1 to 5 miles. Floyd: New Albany, which is the county seat, is at the head of navigation of the Lower Ohio, eight months of the year. Harrison: 20 miles. Washington: there is a railroad running through the center of the county, and another road surveyed. Monroe: railroad through the county centrally from north to south, with stations every six miles. Switzerland: the county borders on the Ohio River for 35 miles; landings at all places where required. Bartholomew: market convenient; nine railroad stations within the county. Jennings: there are fourteen railroad stations in the county, and market convenient. Jefferson: from 1 to 15 miles from Madison on the Ohio River. Good markets all the year. Franklin: facilities for transportation good. Rush: two railroads run through the county town, and diagonally through the county. Ripley: 40 to 60 miles from Cincinnati, Ohio; two railroads through the county. Delaware: Muncie is a railroad town. Wayne: 5 miles the utmost in any part of the county. A new railroad north opens a country with cheap land and plenty of timber. Johnson: two railroads pass through the county. Shelby: this county has about 66 miles of railroad, 16 stations; and 6 miles is the greatest distance from a station at any point. Morgan: two railroads; 30 miles to Indianapolis. Hendricks: about 20 miles to a market town, 5 miles to a railroad station. Greene: Worthington is the center of a great agricultural country. Sullivan: railroad through the county; steamboat landings on the western boundary. Parke: Wabash River on the west; railroad from Rockville to Terre Haute. Putnam: three railroads and a fine market. Carroll: Delphi is a market town and seat of justice. Vermillion: 5 or 6 miles to market. Lake: five railroads in the county; greatest distance to market 14 miles. Newton: from 2 to 25 miles to railroad stations. Pulaski: two railroads pass through the county. La Porte: there are six market towns in the county, six railroads and ten stations, and one harbor on Lake Michigan, at Michigan City. Fountain: this county has six railroad stations, two market towns, one steamboat landing, and a canal. Boone: on the Indianapolis, Cincinnati and Lafayette Railroad. Montgomery: there are two good market towns and seven railroad stations in the district; no steamboat landing. Miami: not exceeding 10 miles from any point within the county. St. Joseph: two railroads and several towns along the same furnish convenient market facilities. Fulton: the county seat of this county is a railroad town and market town. White: two railroads and ten stations. Marshall: average distance 7 miles. De Kalb: this is a railroad town. Steuben: the same. Elkhart: two railroads and six stations. La Grange: from 5 to 12 miles; railroad through center of county; three stations. Howard: two railroads and good markets. Blackford: a railroad station and market here. Wabash: markets are good: we have both railroad and canal.

What is the general quality of land and the kind of timber?

Perry: the land is very hilly, except river bottoms, and varies in quality, ranging from \$2 to \$100 per acre; timber—poplar, beech, hickory, oak, cedar, elm, gum, maple, and walnut. Crawford: bottom land very good; uplands moderately good; all kinds of timber. Scott: land here will hardly average with the rest of the State; almost all kinds

of timber—oak, poplar, maple, hickory, beech, gum, &c. Clarke: river land No. 1, oak land No. 2, and beech flats third rate. Timber—beech, oak, poplar, walnut, sugar-maple, gum, and sycamore. Floyd: clay soil upland; river bottom, rich alluvial; beech, oak, hickory, walnut, and poplar. Harrison: limestone; the timber is poplar, oak, beech, maple, walnut, hickory, &c. Washington: quality fair; oak, poplar, beech, walnut, &c. Monroe: undulating blue-grass land, with an abundance of the best quality of limestone; timber—black walnut, poplar, ash, sugar-maple, beech, oak, hickory, &c. Switzerland: black alluvial soil on and near the river; interior, flat clay; beech, maple, poplar, walnut, oak, ash, elm. Bartholomew: sandy loam and some clay; beech, hickory, oak, &c. Jennings: near the streams the face of the country is hilly and broken and moderately fertile, except in the beech flats, at the head of the streams, where it is only fit for grass; timber—oak, poplar, beech, hickory, and sweet gum. Jefferson: clay land, with beech, oak, poplar, hickory, ash, walnut, &c. Franklin: fair; timber—poplar, oak, walnut, maple, and beech. Rush: land very rich and productive, with but little waste; timber—walnut, poplar, oak, ash, and beech. Ripley: clay soil, rather thin; all kinds of timber—oak, poplar, walnut, hickory, beech, gum, and maple. Delaware: the land, after being underdrained, is good; oak, walnut, beech, maple, hickory, ash, poplar, &c., plenty and good. Wayne: good soil, clay loam; beech, maple, oak, walnut, and hickory. Johnson: rolling land subject to thorough drainage; black loam; burr and white oak, sugar-maple, black walnut, poplar, beech, hickory, &c. Shelby: land good; timber—white burr and red oak, poplar, walnut, gray blue and swamp ash, sugar-maple, hickory, elm, sycamore, &c. Morgan: bottom lands very fertile; uplands medium in quality, but good for grass and excellent for fruit; oak, ash, walnut, sugar-maple, beech, poplar, sycamore, and elm predominate, and are good, cheap, and very abundant. Hendricks: good land; walnut, hickory, beech, ash, oak, maple, poplar, &c. Greene: land is a good average; oak, poplar, walnut, &c. Sullivan: dark loam and clay; beech, oak, maple, and black scrub-oak. Parke: three-fifths good level upland, one-fifth hills, and one-fifth first-rate bottom. Vigo: black loam with sand intermixed, and heavy clay; oak, hickory, poplar, black walnut, beech, and hard maple. Putnam: good, especially for grass; timber of almost every kind common to this latitude—poplar, walnut, maple, beech, hickory, oak, ash, linden, buckeye. Carroll: clay soil; oak, walnut, maple, and beech. Vermillion: black loam and clay; sandy loam with gravel subsoil. Lake: land is rich prairie, clay subsoil; timber—oak and hickory, mostly in the groves; some heavy timber. Newton: deep, rich prairie loam and oak openings, being very sandy. Pulaski: rich prairie lands with timber convenient; timber land sandy and poor. La Porte: about one-quarter sandy barrens; one-quarter marsh, and the remainder fine prairie and rich timber land; oak, poplar, walnut, beech, maple, pine, and basswood. Fountain: good; walnut, maple, beech, oak. Boone: good; walnut, maple, beech, oak. Montgomery: soil good, mostly deep loam; walnut, sugar-maple, oak, beech, poplar, hickory, ash, elm, cherry, &c. Miami: land generally of good quality; white oak and walnut. St. Joseph: there are four different kinds of land; heavy timber land, oak openings, dry prairie, and wet prairie, or marsh. The heavy timber consists of beech, maple, black and white walnut, whitewood, oak, elm, basswood, &c.; on the barrens, white, black and burr oak, and hickory. Fulton: every variety of quality from highest to lowest grade; timber—oak, ash, maple, beech, elm, hickory, poplar, walnut, &c. White: from

first quality to third rate; oak, timber. Marshall: good sandy soil; beech, maple, oak, and black walnut. De Kalb: mixture of sand, loam, and clay; beech, maple, oak, walnut, elm, poplar, ash, and hickory. Stenben: good; oak, beech, maple, whitewood. Elkhart: timbered land; oak, maple, ash, hickory, beech, and walnut. La Grange: land is good; timber—whitewood, soft maple, oak, and walnut; good timber getting scarce in some localities. Howard: black soil; poplar, black walnut, sugar-maple, beech, and hickory. Blackford: oak, hickory, walnut, ash, elm, and sugar-maple. Wabash: the land is fertile; oak, ash, poplar, walnut.

For what kind of labor is there a demand?

Perry: good mechanics can get ready employment. Crawford: agricultural. Scott: all kinds. Clarke: farm laborers and mechanics. Floyd: farm and mechanical labor. Harrison, Washington: all kinds, at good wages. Switzerland, Ripley, Delaware, Morgan, Hendricks, Greene, Carroll, Montgomery, Miami, White, De Kalb, and Elkhart: farm labor, principally. Monroe: supply and demand about equal. Bartholomew: farmers and all kinds of mechanics. Jennings: farmers, stone-quarrymen, and all kinds of mechanical labor. Jefferson, Sullivan, Newton: all kinds. Franklin: farm and mechanical. Rush: every kind, but especially farm labor. Wayne: all kinds, especially skilled. Johnson: all kinds. Shelby: no special demand at present. Parke: almost all kinds; great coal fields. Vigo: coal-mining and railroad-building. Carroll: farm labor. Putnam: good farm hands can almost always find employment at good wages. Vermillion: farm labor and mechanical. Lake: farm hands, carpenters, and cheese-makers. Pulaski: farm, ditching, and dairymen. Fountain: common labor. Boone: farm and mechanical. St. Joseph: farm labor for men, and domestic labor for women; also quite a demand for mechanics and other laborers in our factories. Fulton: ordinary farm hands and common laborers. Marshall: men to clear land, put up saw-mills, and get out lumber, for which there is ready sale. Steuben: farm and ordinary. La Grange: not very much demand for laborers at present, except railroad hands. Howard: pretty well supplied. Blackford: farmers, day laborers, and carpenters.

What mills or factories, if any, are in operation, or in progress, requiring skilled labor?

Perry: cotton-mills employing 300 or 400 hands; furniture, chair, woolen, wagon, bellows and other factories; 5 coal mines employing from 200 to 500 hands; quarries, when in operation employing 100 to 150 hands. Crawford: saw-mills and salt-works. Scott: saw-mills, flour-mills, woolen-mills, sash and door factory, &c. Clarke: 10 flour-mills, 9 saw-mills, 2 ship-yards, 2 car and locomotive manufactories, employing about 500 hands; woolen-mills, foundries, &c. Floyd: 27 flour-mills, 2 iron-rolling mills, 5 planing-mills, 2 glass factories, nail-works, woolen-mill, 9 saw-mills, 1 railroad-iron mill, axe and edge-tool works, 5 extensive foundries, machine-works, &c.; &c.; -capital employed, about \$1,000,000. Harrison: none. Washington: woolen factories, flour and saw mills. Monroe: woolen-mills, planing-mills, foundries, &c. Switzerland: none of any consequence. Bartholomew: hydraulic woolen-mills, some 6 or 7 flour-mills, sash and blind factories, &c. Jennings: 25 saw and grist mills, 9 flour-mills, 3 woolen factories, and 2 furniture factories. Jefferson: all that are required in an old-settled country. Franklin: paper, flour, and woolen mills. Rush: 12 flour-mills, 3 planing-mills, 3 woolen factories, carriage factories, &c. Ripley: none. Delaware: no extensive factories in operation or in progress. Wayne:

woolen factories, machine-shops, founderies, paper-mills, saw-mills, flour-mills, &c. Johnson: 14 flour-mills, 15 saw-mills, 3 planing-mills, 3 woolen factories, 2 founderies, &c. Shelby: flour-mills, saw-mills, woolen factory, planing-mills. Morgan: there are many saw-mills and flour-mills, and a few woolen-mills, and one planing-mill; founderies and factories badly needed. Hendricks: 2 grist-mills, 2 saw-mills, 1 woolen factory. Greene: 4 saw-mills and 2 grist-mills. Parke: 21 flour-mills, 70 saw-mills, 3 woolen factories, and about 100 other mechanical shops and manufactories. Vigo: woolen factories, founderies, blast furnaces, rolling-mills, planing-mills, &c. Putnam: iron and nail factory, pump factory, woolen-mills, planing-mills, and many smaller manufactories, but they are generally supplied with hands. Carroll: grist-mills, saw-mills, and paper-mills. Vermillion: 2 woolen-mills. Lake: several grist-mills, 1 woolen-mill, sash and blind factories, planing-mills, &c. Newton: 1 water and 2 steam grist-mills, 3 steam saw-mills. Pulaski: a good mill very much needed in the western part of the county; factories also needed. La Porte: woolen-mills, furniture and car factories, machine-shops, &c. Fountain: none. Boone: grist and saw mills, woolen and stave factories. Montgomery: 4 woolen factories, cabinet, sash and blind, and stave factories, foundery and machine shop, 12 flour-mills. St. Joseph: 10 flour-mills, 30 saw-mills, 3 woolen factories, 2 founderies, 3 extensive wagon factories, 4 smaller wagon factories, 4 extensive agricultural implement factories, 12 furniture factories, 1 extensive sewing-machine factory, 1 paper-mill, tannery, &c., &c. Fulton: grist-mills, saw-mills, woolen factories, planing-mill. White: 3 large woolen factories, 2 large flour-mills, and 3 saw-mills on Tippecanoe River; a new dam with 10 feet fall just completed. Marshall: there are about 45 steam and water-power mills in this county, and twice that number can find ready sale for their products. De Kalb: grist-mills and saw-mills, and stave factories. Steuben: flour and saw mills. Elkhart: we have but few manufactories; 10 grist-mills, 4 woolen-mills, &c., &c. La Grange: none in this county, except woolen and carriage factories. Howard: woolen factory, machine-shop. Blackford: a hub and spoke factory, employing 150 hands. Wabash: 2 woolen-mills, 2 founderies, 4 planing-mills, 5 furniture factories, 12 wagon and carriage shops, 14 flour-mills, &c.

Are there in your vicinity any railroads or other public works in progress, requiring common labor? If so, how far distant?

Scott: a railroad running through the eastern part of the county has just been completed. Clarke: there are three railroads through the county now completed; 71 miles of road. Floyd: one to be built forthwith. Harrison: one railroad. Jefferson: one, 15 miles distant. Rush: two commenced running. Delaware: Muncie is the present terminus of a railroad. Wayne: many hands are employed in this county in the summer. Morgan: gravel roads are progressing, on which laborers are needed. Hendricks: one railroad in course of construction one-fourth of a mile from town. Greene: one to be built this summer. Sullivan: railroads are constructing within 40 miles, where men can find employment. Parke: yes; 64 miles. Vigo: yes; within one mile of Terre Haute. Putnam: one railroad touching city limits completed, and doing an immense business. Carroll: none in process of construction yet; one soon to be built. Vermillion: one from Terre Haute to Chicago. Lake: Danville and Chicago railroad. Newton: one through the adjoining county. Pulaski: two railroads completed, and one to be built this year. Fountain: a railroad in process of construction through the county. Boone: yes; within 15 miles. Montgomery: one railroad in course of construction. St. Joseph: one railroad in progress. White:

two built, one in progress. De Kalb: one railroad crosses the county north and south. Steuben: yes. La Grange: one railroad running across the county; laborers wanted in this and adjoining counties. Howard: some turnpikes in this county. Blackford and Wabash: one railroad in process of construction.

If many foreign-born workmen are employed in your district, please give the preponderating nationality?

Jennings: Irish and Germans about equal in number. Parke: not many employed; Irish seem to predominate.

Please state any advantages which your district can offer to laborers, mechanics, or small farmers. Is there much land, of good quality and well watered, yet unoccupied?

Perry: plenty of land of poor quality, and well watered, that can readily be obtained at very low figures, \$1 50 to \$2 per acre. Tell City, in this county, was settled about twelve years ago by Swiss emigrants, and is fostered by the Swiss Colonization Society. It has now a population of 3,000 or more, is a manufacturing town, and will undoubtedly in five years double its population. Crawford: there are lands yet unoccupied, well watered and well timbered, suitable for small farmers. Scott: but little land vacant; the supply of labor is ample. Clarke: the best water-power on the Ohio River for factories of all kinds. This county has a river front of 40 miles, with good steamboat landings almost the entire distance; quite a surplus of good farming land in all parts of the county. Floyd: the advantage of rich land, which can be bought cheap; two railroads now terminate in this county; another will be completed in June; one will be commenced in April. Harrison: none. Rush, Elkhart: the same. Washington: good climate, good markets, good society. Monroe: no land of good quality unoccupied; no particular advantages can be offered to laborers, mechanics, or farmers. Switzerland: an excellent agricultural county, healthy, well settled, with churches and school-houses in every neighborhood; plenty of land can be purchased. Bartholomew: a large amount of choice land, very productive, excellent water, and a healthy climate, convenient to railroads and market. Jennings: three railroads running through the county, that necessarily require many men to keep them in repair; a large amount of land unoccupied, but not very productive. It is well watered however, and the climate is healthy, and market convenient for all kinds of products. Jefferson: no Government land here, but land is cheap. Franklin: not much land unoccupied; no special advantages. Rush: high wages, plenty of work, sure pay, and good living. Ripley, Boone, and Steuben: land unoccupied. Delaware: land unoccupied, but no great advantages. Wayne: the city of Richmond employs from five to ten thousand skilled mechanics during the whole year; the proprietors, with scarcely an exception, having grown up with the city, are solid business men, and financially sound. The products of our manufactories are sent all through the West, and are deep down into the South. For gardeners and small fruit-growers, this vicinity is unsurpassed; fertile soil, healthy climate, and convenient market, having railroad communication in all directions. Johnson: nearly all the land in the county is occupied. The demand for all kinds of labor is active and pressing. Shelby: good inducements for industrious and skillful farmers. We need capital also for the erection of mills and factories. Morgan: our cheap unimproved hill lands are well adapted to grass and unsurpassed for fruits; peaches, apples, pears, &c., seldom failing to yield abundantly, and for such fruits, whether green, canned, or dried, Indianapolis, Cincinnati, and Chicago offer

excellent markets. Hendricks: good prices for all kinds of unskilled labor; mechanical labor is also in demand. Greene: the quality of the soil is good; plenty of water and good timber; coal, iron, and pattern clay in abundance, and of good quality. Sullivan: plenty of good farming lands unoccupied, where people may find good homes. Parke: very little land unoccupied, and none unowned. If our contemplated railroads shall be built, coal-mining and iron-works will follow next in order. Vigo: very little land unoccupied. Putnam: farm hands during the spring and summer can find employment at fair wages, say from \$25 to \$30 per month and boarded. Carroll: quite an amount of unoccupied timber land owned by speculators. Vermillion, Elkhart: no land unoccupied. Lake, Boone, and Steuben: considerable land unoccupied. Howard: some. Newton: laborers can get good wages for two-thirds of the year. The land is rich and can be purchased at a reasonable rate. Pulaski: cheap farms and easy payments; a good grazing country. La Porte: no land unoccupied; that which is unimproved is reserved for either timber or pasture. Fountain: plenty of employment for laborers; small farmers can obtain lands on reasonable terms. Montgomery: mechanics of almost every sort command work readily at fair prices; small farmers are in demand; the soil is excellent; markets good and convenient, country healthy. Miami: considerable land of good quality, well watered, still unoccupied, which can be obtained on reasonable terms. St. Joseph: the two towns of South Bend and Mishewaka are thriving manufacturing towns, already employing a large number of persons, and as their operations enlarge will require many more. Considerable attention is given to the cultivation of small fruits, &c., and there is a good opening for a much larger business. The local towns afford a good market for these products, and all surplus articles can readily be sent to Chicago for market. The lands of the county are well watered; good opportunities to purchase small farms. Fulton: much land of good quality, and more of inferior quality yet unoccupied. White: farmers with large or small capital are much needed. There are at least 10,000 acres unoccupied, cheaper and nearer market than any east of Mississippi River; the best water-power in Northern Indiana for sale within one mile of county seat. Marshall: as good land as any in the State, well watered and well timbered, yet unoccupied. Wood sells readily for \$3 per cord, and manufactured into lumber sells for \$16 to \$17 per thousand, green, and \$26 for seasoned; and after the timber is off the purchaser has the land clear for farming purposes. De Kalb: land principally occupied. La Grange: there are a few small farms, also a few large ones to rent. The land is well watered and of the best quality. Blackford: there is yet a large quantity of land unimproved, which can be purchased on easy terms. The land is of good quality and well watered, and not hilly. Wabash: very little land unoccupied. Shelby: prices of produce: eggs, 25 cents; butter, 35 cents; sweet potatoes, \$1 25 to \$1 60; cheese, 20 cents; sugar, 12½ to 18; sorghum molasses, 60 cents per gallon; chickens, \$3 per dozen; turkeys, 75 cents to \$1 each.

What are the prices of ordinary farm stock, sound and in good condition?

District.	County.	Working oxen, per pair.	Working horses, per pair.	Working mules, per pair.	Milch cows, each.	Sheep, each.	Hogs, per pound, gross weight.
2	Perry	\$50 to 150	\$50 to 125	\$100 to 200	\$25 to 40	\$1½ to 2	5 to 6c.
2	Crawford	50 to 75	50 to 100	75 to 125	30	1½ to 2½	6c.
2	Scott	75 to 125	100 to 150	80 to 150	25 to 50	1½ to 2	-----
2	Clarke	75 to 100	100 to 150	100 to 200	40 to 60	1 to 5	7 to 10c.
2	Floyd	75 to 150	100	120	35 to 75	3	6c.
2	Harrison	100	100	125	40	2	9c.
2	Washington	125 to 150	125 to 140	125 to 200	30 to 60	1 to 5	8c.
3	Monroe	150	80 to 130	80 to 120	40 to 75	1½ to 2½	7 to 9c.
3	Switzerland	150 to 160	125 to 150	125 to 150	50 to 60	3	8c.
3	Bartholomew	75 to 100	75 to 150	80 to 175	20 to 50	2	8c.
3	Jennings	50 to 125	75 to 175	75 to 200	25 to 60	2 to 3	10c.
3	Jefferson	150	100 to 135	100 to 135	35 to 50	1 to 2	7c.
4	Franklin	100 to 200	100 to 200	100 to 200	30 to 50	1 to 2	-----
4	Rush	200	100 to 125	125 to 200	50	2 to 3	8 to 10c.
4	Ripley	150	100 to 200	150 to 250	40	2 to 3	8 to 10c.
5	Delaware	120	50	90	35	1 to 1½	8c.
5	Wayne	125	125	125	50	2½	10c.
6	Johnson	125	100 to 150	120 to 160	40 to 60	2 to 3	7c.
6	Shelby	75 to 90	65 to 125	60 to 100	35 to 60	1½ to 3	6 to 10c.
6	Morgan	100	100	125	50	1½	*\$5 to 10
6	Hendricks	150 to 200	125 to 200	125 to 200	40 to 80	2 to 4	-----
7	Greene	85 to 125	85 to 150	85 to 150	30 to 60	1½	9c.
7	Sullivan	160 to 200	100 to 150	80 to 100	35 to 50	1 to 1½	8c.
7	Parke	125	250	250	50	3	8½c.
7	Vigo	100	100	100	40	2	6c.
7	Putnam	150	70 to 100	100 to 200	40 to 50	2½ to 5	8 to 10c.
8	Fountain	200	110	150	45	2	10c.
8	Boone	150	100	100	40	2	8c.
8	Montgomery	150 to 200	100	100	50 to 75	2	9c.
8	Carroll	100	120	150	40	2	6c.
8	Vermillion	100	100	125	40	2	-----
9	Lake	75 to 110	100 to 125	120 to 150	30 to 50	2 to 3	10c.
9	Newton	100 to 150	75 to 150	70 to 110	30 to 75	75c. to 2	8 to 9c.
9	Pulaski	100	100	125	40	3	*\$6
9	Laporte	160	100	125	40	1½	-----
9	Miami	80	100	90	30	3	*\$10
9	St. Joseph	80 to 125	75 to 125	100 to 150	25 to 50	75c. to 1½	*\$3 to 6
9	Fulton	100 to 150	100 to 150	100 to 150	25 to 45	1 to 2½	7 to 8c.
9	White and Monticello	150 to 200	75 to 150	100 to 200	30 to 50	1 to 2	6c.
9	Marshall	150 to 175	75 to 125	100 to 125	35 to 50	1½ to 2	6 to 7c.
10	De Kalb	100	125	125	45	1½	*\$12
10	Elkhart	150	150	100	30	2	*\$5 to 10
10	Steuben	125	125	100	35	2	*\$7
10	La Grange	165	150	100 to 200	50	2	7 to 8c.
11	Howard	100	75 to 150	75 to 150	40 to 50	2	-----
11	Blackford	100	75 to 125	60 to 100	25 to 50	1 to 2	7c.
11	Wabash	50 to 75	60 to 125	150 to 200	35 to 50	1 to 2	6 to 7c.
	Average	\$123 77	\$116 44	\$129 02	\$43 66	\$2 09	6. 87c.

* Each.

ILLINOIS.

Area, 35,459,200 acres. Population in 1870, 2,538,408.

Can land be purchased or rented in your district suitable for small farms on favorable terms?

* Winnebago, Lake, McHenry, Whitesides, Jo. Daviess, Lee: all answer affirmatively. Ogle: very little land for rent at any price. Stephenson, Rock Island, Stark, Henry, Kendall, Du Page, Will, Iroquois, Edgar, Coles, Woodford, Livingston, Christian, Morgan, Scott, Fayette, Marion and Clay, Clark, Washington, Madison, Clinton, Randolph, Edwards, White, Massac, and Johnson: it can. Putnam, Tazewell, Fulton, Jersey, Greene, and St. Clair: no. Bureau: lands are high; renting from \$3 to \$5 per acre. Grundy: almost all unimproved land is controlled by speculators. La Salle: not on easy terms. Cass: land can be purchased, but farms for rent are scarce. Monroe: not at present; land is cheap

* Names of counties from which returns have been received.

and owners are waiting for better times. Gallatin: few small farms; land is plenty. Kane: plenty of farms for sale on favorable terms, but few for rent.

What is the price per acre of small improved farms? State what proportion has been under cultivation, how much, if any, is fenced, and the kind of buildings?

Kane: farms of 100 to 160 acres, with good buildings, are worth \$50 per acre; larger farms from \$30 to \$40; well fenced. Winnebago: from \$45 to \$55; four-fifths prairie land; has been under cultivation, and all fenced; the other one-fifth is timbered, and is about one-half fenced; buildings moderately good. Lake: from \$30 to \$50; all under cultivation, and all fenced; buildings of wood, and very good. McHenry: from \$10 to \$75; nearly the whole of the land is fenced, and from 20 to 100 acres of each farm is under cultivation; fences and buildings good. Whitesides: a farm of 80 acres, the whole inclosed with board fence, one-half under cultivation, and buildings worth \$1,000, would bring \$35 per acre. Jo. Daviess: \$40 per acre; all fenced; one-half under cultivation; buildings small and common. Lee: average, \$35; small one-and-a-half story houses; three-fourths improved; all fenced. Ogle: \$30 to \$40. Stephenson: \$30 to \$100; general average, from \$50 to \$60. Rock Island: about \$20; all under cultivation, and all fenced, with moderately good buildings. Stark: from \$50 to \$60; all fenced; good buildings. Peoria: from \$40 to \$75; all under cultivation, and all fenced; buildings good. Putnam: the same. Bureau: from \$30 to \$50; three-fourths of all the land is fenced and under cultivation; buildings as yet of medium quality. Henry: from \$40 to \$60; fenced, and with fair buildings. Kendall; about \$50; one-half to two-thirds under cultivation, and fenced; good frame buildings, generally. Du Page: small farms of from 40 to 60 acres, all fenced, with small frame buildings, 25 miles west of Chicago, are worth from \$60 to \$65 per acre. Grundy: improved farms of 80 acres, \$40 per acre, all under cultivation, and fenced; buildings of medium quality. Will: from \$40 to \$60; all fenced; ordinary buildings. La Salle: from \$45 to \$60; all fenced; comfortable wooden buildings. Iroquois: from \$15 to \$40; plain frame buildings. Edgar: from \$40 to \$50. Coles: from \$10 to \$60, according to location and improvements. Woodford: \$40; all under cultivation and fenced, with ordinary buildings. Livingston: \$30 to \$50 for small farms that are under cultivation; small frame buildings; fencing almost entirely of boards, or Osage hedges. Tazewell: average, \$40. McLean; from \$60 to \$75; generally well improved, and all fenced. Fulton: from \$30 to \$75; nearly all the valuable lands are under cultivation; buildings frame or brick. Cass; uplands from \$35 to \$50; the rich bottom lands from \$75 to \$100; mostly fenced. Christian: \$35 to \$40; all fenced; chiefly under cultivation; very ordinary buildings. Morgan: from \$60 to \$85; four-fifths under cultivation, and nine-tenths under fence; good wooden buildings. Scott: from \$50 to \$100; two-thirds under cultivation; ordinary buildings. Jersey: from \$30 to \$80; all under cultivation; ordinary buildings. Greene: from \$40 to \$90; all fenced; nearly all cultivated; frame buildings. Fayette: from \$10 to \$25; one-half cultivated; buildings good. Marion and Clay: from \$7 to \$50, depending upon distance from railroad station; about two-thirds under cultivation; wooden buildings. Clark: average, \$25; all fenced; frame buildings. Washington: \$15 to \$30; three-fourths under cultivation, and fenced; buildings block and frame houses. Madison: from \$25 to \$125, depending upon locality and the kind of improvements. St. Clair: no small farms. Clinton: from \$10 to \$30;

two-thirds under cultivation; ordinary buildings. Monroe: from \$10 to \$50; mostly log or frame buildings. Randolph: from \$20 to \$40; two-thirds under cultivation. Gallatin: lands along the river from \$15 to \$40; away from the river, from \$6 to \$10; buildings indifferent. Edwards: from \$15 to \$35. White: from \$10 to \$15 per acre for ordinary; from \$15 to \$35 and \$40 for well-improved farms with good buildings. Massac: from \$5 to \$15; from one-third to one-half under cultivation; frame buildings. Johnson: from \$5 to \$10; 15 to 30 acres cleared; log buildings.

What is the price per acre of unimproved land, what proportion is cleared, and how much, if any, is fenced?

Kane: not much unimproved land in this division; price from \$30 to \$40 per acre. Winnebago: about \$30; two-thirds timbered land, and one-third prairie; one-half fenced. Lake: no unimproved land in this county. McHenry: but little unimproved land in this county, and that is low and only fit for pasture; the timbered land is owned by farmers, and mostly fenced in for pasturage. Whitesides: prairie land without fence is worth \$15. Jo. Daviess: prairie land, unfenced, \$25; open land, or barrens, with young timber, \$10 to \$20. Lee: from \$10 to \$20 for prairie, without fence. Ogle: comparatively no unimproved farming land in this division. Stephenson: no unimproved land here except timber land, which is owned in small parcels for the use of prairie farms. Rock Island: wild land, neither fenced nor cleared, \$10. Stark: no unimproved land. Peoria, Coles, Jersey, Greene, and St. Clair: none. Henry, Will, and Fulton: very little unimproved; from \$10 to \$20. Putnam: the same. Bureau: \$20 to \$30; mostly prairie. Kendall: \$30 to \$35; nearly all cleared, and without fence. Du Page: unimproved land, if fenced, is worth from \$40 to \$50 per acre; all prairie. Grundy: prairie from \$15 to \$25; not much unimproved in this county. Iroquois: from \$5 to \$20, according to proximity to depot; all prairie land. Edgar: \$20 to \$30. Woodford: from \$15 to \$20; prairie; no fence. Livingston: \$20 to \$25; prairie land; not fenced. Tazewell: from \$5 to \$40; none fenced. McLean: \$15 to \$20. Fulton: very little unimproved, but what there is is valuable for timber, and pasturage. Christian: from \$15 to \$20; no prairie; timber land, \$25. Morgan: \$30 to \$40. Scott: river bottom land, subject to inundation, can be bought for from \$5 to \$10; other land, from \$10 to \$50. Fayette: from \$10 to \$20. Marion and Clay: from \$5 to \$20. Clark: \$15 to \$20. Washington: \$5 to \$30, according to quality; neither cleared nor fenced. Madison: first-class unimproved prairie land will bring from \$50 to \$60; timber land ranges from \$20 to \$50, according to locality and quality; coal lands are worth from \$75 to \$125. Clinton: land mostly prairie; from \$5 to \$20. Monroe: \$5 to \$40. Randolph: \$10 to \$15. Gallatin: two-thirds of the land in this county is unimproved. Edwards: \$5 to \$15; no fence. White: the same. Massac: from \$4 to \$10. Johnson: from \$2 to \$5.

What is the yearly rent of small improved farms? If rented on shares, what share does the owner receive? Does the latter provide stock, implements, or seeds?

Kane: from \$3 to \$5 per acre; owner receives one-half and provides half the stock, all the implements, and one-half the seeds; the renter furnishing his own team. Winnebago: from \$4 to \$5 per acre; owner gets one-third of the crop, and lessee provides stock, implements, and seeds. Lake: owner receives one-half and provides only seeds; stock and implements are furnished jointly. McHenry: the same. Whitesides: owner receives one-third and provides nothing. Joe Daviess, Lee,

Ogle, Stephenson and Rock Island : owner receives one-third and furnishes nothing, or one-half and furnishes everything. Stark : tenant finds all, and gives two-fifths for the use of the land. Peoria : \$3 to \$5 ; on shares, owner receives one-third and furnishes nothing. Putnam : \$4 ; on shares same as above. Bureau : \$3 to \$5, or from one-third to one-half of all crops to owner, renter furnishing all. Henry : \$4 to \$5, or one-third of crop. Kendall : \$3 to \$4 ; on shares, one-third, tenant finding seeds, tools and team ; one-half if owner finds seeds and implements, the tenant furnishing his own team. Du Page : the same. Grundy : owner receives two-thirds and provides stock, implements, &c., or one-third and provides nothing. Will : from \$5 to \$10 ; owner one-third. Iroquois : from \$2 to \$3, or one-third of crop, and provides nothing. Edgar : \$3 to \$4, or two-fifths of crop. Coles : from \$2 to \$5, on shares ; owner receives one-third unless he furnish team, implements, and seeds, in which case he receives one-half. Woodford : from \$3 to \$4 per acre, or from one-third to two-fifths of the product, without providing anything. Livingston : from \$3 to \$5, according to distance from railroad station ; shares, same as above. Tazewell : \$3 50 to \$4 ; shares, same as above. McLean : one-third and one-half, according as one or the other furnishes teams, &c. Fulton : \$3 to \$5 ; shares, same as above. Cass : two-fifths to owner when renting on shares. Christian : \$3 50 ; on shares, owner receives one-third. Morgan \$5, or two-fifths of products. Scott : \$5, or one-third of products ; owner furnishing nothing. Jersey : from \$4 to \$6 ; shares, as above, viz : two-thirds. Greene : about \$6 ; owner from one-third to two-fifths. Fayette : from \$2 to \$3, or one-third of products. Marion and Clay : from \$2 to \$4 ; shares one-third, or if owner provides stock, &c., one-half. Clark : crop rents ; landlord furnishing nothing, one-third ; and furnishing seed, implements, stock, &c., one-half ; cash rent, \$2 50 to \$3. Washington : one-third of the produce. Madison : \$5, or one-third of the crop ; the owner does not furnish stock, implements, or seeds. Clinton : \$3, or one-third the product ; the renter furnishes team and seeds. Monroe : from \$3 to \$10 ; on shares one-half when stock, &c., is furnished by the owner ; otherwise, one-third. Randolph : \$3, or one-third of the crop. St. Clair, Gallatin : from \$2 50 to \$3 50, or ten bushels of corn per acre ; if on shares, one-third. Johnson : \$2 ; shares, as above. Edwards and White : cash rent, \$3 ; shares, as above.

What are the chief articles of production, and what are the present prices of two or three of them ?

Articles of production.	Price.	Counties.
Wheat.....per bushel..	\$0 60 to \$0 80	Putnam, McHenry.
Do.....do.....	60 to 90	Stephenson.
Do.....do.....	60 to 1 20	St. Clair, Jersey, Coles, Madison.
Do.....do.....	80	Marshall, Kendall, White.
Do.....do.....	85	Whitesides, Randolph, Edwards.
Do.....do.....	75 to 1 10	Marion, Clay, Monroe.
Do.....do.....	90	Jo Daviess, Stark, Edgar, Greene.
Do.....do.....	1 00	Scott, Morgan, Lee, Clark, Gallatin, Johnson.
Do.....do.....	95	Rock Island, Cass.
Do.....do.....	90 to 1 00	Winnebago, Fulton.
Corn.....do.....	25	Johnson, Whitesides.
Do.....do.....	30	Jersey, Coles, McLean, Scott, Clark, Gallatin.
Do.....do.....	35	Rock Island, Morgan, Greene, Madison.
Do.....do.....	30 to 40	Marion, Clay.

Articles of production.	Price.	Counties.
Corn.....per bushel..	\$0 40	Kane, Jo Daviess, Cass.
Do.....do.....	\$0 40 to 55	Stephenson, Monroe.
Do.....do.....	50	McHenry, Putnam, Stark, Bureau, Edgar.
Do.....do.....	55	St. Clair, White.
Do.....do.....	60	Lee, Peoria, Randolph, Edwards, Winnebago.
Do.....do.....	65	Marshall, Grundy.
Do.....do.....	75	Kendall, DuPage.
Oats.....do.....	25	Marshall, Whitesides.
Do.....do.....	30	Clark, Johnson.
Do.....do.....	35	Kane, Lee, Stephenson, Putnam, Bureau, Coles, McLean, Greene, White.
Do.....do.....	40	Jo Daviess, Stark, Du Page, Edgar, Scott, Monroe, St. Clair, Edwards.
Do.....do.....	30 to 40	Marion, Clay, Kendall.
Do.....do.....	50	Peoria.
Rye.....do.....	55	Stephenson.
Do.....do.....	60	Putnam.
Do.....do.....	65	Winnebago.
Do.....do.....	80	Lee, Clark.
Barley.....do.....	50	Lee, Bureau.
Do.....do.....	1 00	Kane.
Potatoes.....do.....	30	Rock Island, Clark.
Do.....do.....	40	Du Page.
Do.....do.....	60	Scott.
Do.....do.....	75	Marion, Clay.
Do.....do.....	80 to 1 00	Monroe.
Do.....do.....	1 25	Madison.

What is the distance to a market town, a railroad station, or a steamboat landing?

Kane: railroad station at this place, also a good market. Winnebago: from 1 to 8 miles to market town and railroad station; no steamboat landing. Lake: average distance 12 miles, from the whole county. McHenry: from 1 to 8 miles from railroad station; no steamboat landing. Whitesides: three lines of railroad completed through the county; facilities for market good. Jo Daviess: Illinois Central Railroad through entire northern part of county; Mississippi River on southwest side; Galeua, a port of entry. Lee: average 6 miles. Ogle: greatest distance 9 miles. Stephenson: 10 miles is the maximum distance. Rock Island: the most remote farms in the county are 16 miles from market. Peoria: four steamboat landings and six railroad stations. Putnam: average distance 9 miles, river and railroad. Bureau: average, 5 miles to railroad station. Henry: railroad stations all over this division. Kendall: three market towns in this county; railroad passing through one of them, and stations within two and a half miles of two of them. Du Page: 25 miles west of Chicago is the town of Wheaton, a railroad station. Grundy: a railroad and canal within 16 miles of any part of the county. Will: six railroad stations within my division. Iroquois: from 1 to 15 miles from railroad station. Coles: railroad stations convenient in every direction; also market town. Woodford: from 5 to 8 miles. Livingston: railroad lines run through the county north and south, east and west. Tazewell: as soon as the railroads now in progress are completed, the greatest distance will not exceed 8 miles. McLean: two new railroads to be finished this year, in addition to those already in operation. *Fulton: the most remote farm will not exceed 10 miles from a railroad*

station or a steamboat landing. Cass: railroads are plenty, and markets at almost every door. Christian: the county seat is a market town; the most remote farm is not over 10 miles distant. Morgan: average for the entire county, 4 miles. Scott: railroad passes through the county seat. Jersey: not more than 7 or 8 miles from any person living in this county. Greene: the county is full of stations, 12 miles from steamboat landing. Fayette: two railroads through the town. Marion and Clay: from 10 to 12 miles is the farthest; there are railroads running north, south, east, and west. Clark: 5 miles to railroad station; steamboat landing 25 miles. Washington: distance to market town from 1 to 15 miles; to a railroad station from 1 to 25 miles. Madison: Edwardsville is situated 20 miles from St. Louis, and 14 miles from Alton; one railroad in operation, another building. Clinton: Ohio and Mississippi Railroad runs through the center of the county. Monroe: nearest station 12 miles, steamboat landing 11 miles, and another 13 miles. Randolph: railroad 30 miles, steamboat landing 20 miles. Gallatin: no part of the county is farther than 20 miles from the river. Edwards: ten miles to steamboat landing, 26 miles to railroad station. White: slack-water navigation to Carmi on the Wabash, Carmi being the county seat, and situated near the center of the county. Massac: from 1 to 15 miles. Johnson: Ohio River 16 miles, railroad 18 miles.

What is the general quality of land and the kind of timber?

Kane: land good; timber mostly red, white, and burr oak, short and scrubby. Winnebago: sandy loam; timber principally oak. Lake: good prairie land; timber—oak. McHenry: black rich soil; oak. Whitesides: sandy loam, in some portions clay subsoil; timber—black walnut, black ash, maple, cottonwood. Jo Daviess: black loam on the prairie; on timber land clay loam, white burr and jack oak. Lee: alluvial soil of good quality; timber skirting the streams—oak, black walnut, and hickory. Ogle: general quality of land, good; timber good but not heavy. Stephenson: quality of land good as the sun ever shone on; timber—oak, walnut, basswood, &c. Rock Island: prairie bottom, good soil; no timber of any note. Stark: black loam; timber—white and black oak, walnut, and almost all other kinds. Peoria: good; oak, maple, black walnut, elm, &c. Bureau: deep sandy loam; oak, black walnut along the creeks. Henry: quality of land No. 1, black loam; not much timber. Kendall: quality of land is good, some black loam and some sandy soil; timber—black walnut, red, white, and black oak, sugar-maple, hickory, elm, &c. Du Page: land is of the first quality; timber—mostly oak and hickory, some basswood in low lands. Grundy: land exceedingly rich; not much timber, plenty of coal for fuel. Will: good; oak, maple, and hickory. Iroquois: prairie land, good soil; timber—the different kinds of oak, walnut, hickory, and maple. Edgar: black rich soil; principally oak timber. Coles: prairie land, rich black loam; timber, principally white oak and hickory. Woodford: good prairie land; timber, principally oak of different kinds. Livingston: dark loam; oak and walnut timber along the river, much of which has not been cut off yet. Tazewell: quality of land good; all kinds of hard-wood timber, but not much of it. McLean: good land; oak timber, principally. Fulton: good quality; variety of timber, such as white, black, and Spanish oak, black walnut, hickory, and sugar-maple. Cass: the soil is a rich loam; timber—oak, hickory, maple, &c. Christian: principally prairie land; oak and hickory timber. Morgan: best quality of land; timber—walnut, white oak, hickory, and ash. Scott: greater part of the land is first-rate; timber—black and white oak, walnut, and elm. Jersey: limestone, from poor

to as good as any person can wish. Greene: black loam, very rich; oak, hickory, black walnut, ash, and sycamore. Fayette: land good; timber—oak, hickory, walnut, ash. Marion and Clay: good; white and black oak, post oak, sugar-maple, walnut, hickory, ash, cottonwood, &c. Clark: generally clay and sand prairie; oak, walnut, hickory, elm. Washington: general quality of land second-class; timber—white and red oak, sycamore, elm, white ash, cherry, walnut, and hickory. Madison: lands rich and fertile; timber various, but principally oak, hickory, and walnut. Clinton: good rolling prairie; oak, maple, hickory, and walnut. Monroe: land on the bluffs and interior generally old, exhausted land; much better in the prairie; timber—all kinds of oak, hickory, elm, maple, and walnut. Randolph: limestone, mulatto, black loam, and clay subsoil; timber—post oak, red oak, ash, walnut, hickory, pecan, hard and soft maple, cherry, &c. Gallatin: land generally good; timber—oak and hickory, ash, walnut, and other varieties. Edwards: land good; timber—walnut, hickory, and oak. White: generally clay soil, interspersed with belts of sand loam; timber—oak, lime, hickory, ash, poplar, and walnut. Massac: land good. Johnson: soil good; heavy timber—oak, poplar, walnut, hickory, ash, sugar-maple, &c.

For what kind of labor is there a demand?

Kane: farm labor. Winnebago: mechanics and farm labor. Lake: farm labor. McHenry: all kinds of labor. Whitesides: Coles, McLean, Fulton, Christian, Morgan, Madison, Randolph, Gallatin, Edwards, and Massac: all kinds. Jo Daviess: farm hands and miners. Lee, Stephenson, Stark, Putnam, Bureau, Du Page, Grundy, Iroquois, Edgar, Woodford, Cass, Fayette, Marion and Clay, Clark, Ogle, Washington, Clinton and Johnson: farm labor. Rock Island: farm hands and common laborers. Peoria and Henry: farm labor and laborers on railroads and other public works in course of construction; also miners. Kendall: farm and railroad labor and mechanics. Will: farm labor, coal miners, and almost all kinds. Livingston: farm, mechanical, and domestic labor. Tazewell: farm and other common labor. Scott: carpenters, bricklayers, stone-masons, plasterers, cabinet-makers, with small capital, could do a large and profitable business. Jersey: farm labor and miners. Greene: farm labor, railroad hands, carpenters, &c. Monroe: farm labor and female servants. Whitesides: all kinds, but more particularly farmers and mechanics.

What mills or factories, if any, are in operation or in progress requiring skilled labor?

Kane: National Watch Company at Elgin, Fox River Manufacturing Company at Elgin, Valley Woolen Company, and Illinois Iron and Bolt Company, Carpentersville, Illinois. Winnebago: 5 mower and reaper, 1 woolen, 1 cotton, and 1 agricultural implement factories, 2 foundries, 5 planing-mills, 3 door, sash and blind factories, 6 to 8 wagon shops, 1 flax-mill. Lake, Putnam, Grundy, Christian, Fayette, Madison and St. Clair: none. McHenry: flour-mills and woolen factories. Whitesides: flour-mill, paper-mill, and a factory of agricultural implements. Jo Daviess: 3 woolen-mills, 7 flour-mills, 2 furniture factories, 2 planing-mills, one flax-mill, four lead-smelting furnaces, wagon-shops, boot and shoe shops, &c. Lee: flour and flax mills, wool and knitting factories. Stephenson: grist-mills, woolen-mills, saw-mills, factories for making agricultural implements. Rock Island: 2 distilleries, 1 pottery, 2 paper-mills, 1 malleable-iron works, 7 saw-mills, 8 planing-mills, 3 agricultural-implement factories, 2 foundries, 2 manufactories of woolen goods, 1 tub and pail factory, 2 broom factories, Government arsenal and armory, *very large*. Stark: 5 flour-mills, 1 woolen factory. Peoria: grist and

saw mills. Bureau: manufactories of farm implements. Henry: flour-mills and agricultural-implement factories. Kendall: 1 paper-mill, 1 reaper factory, and one woolen factory. Du Page: flour-mills and woolen factories. Will: flour-mill. Iroquois: 2 planing-mills and 1 woolen factory. Coles: flour and saw mills, founderies, woolen factories, and breweries. Woodford: 13 flour-mills, 1 distillery, 2 breweries, 1 foundery. Livingston: 2 good woolen-mills, 6 planing-mills, 1 water and 7 steam grist-mills, several small saw-mills, and beet-sugar manufactory. Coal is being mined extensively in the northwest corner of the county, and there are three coal-shafts in operation along the Vermillion River. Tazewell: there are several factories in operation, but they all have plenty of hands. McLean: woolen factories, 2 large coal-shafts, employ 250 men. Railroad shops of the St. Louis, Alton, and Chicago Railroad, employing 700 men, besides large plow factories, and other machine-shops. Fulton: several woolen factories, agricultural-implement factories, a number of flour-mills, and several carriage factories. Morgan: flour-mills and woolen-mills. Scott: steam flour-mills, 5 machine-shops, factories of plows, reapers, threshers, wagons, carriages, &c. Jersey: flour-mills, carriage and wagon factory, agricultural-implement factory, and cooperage. Greene: 10 steam flour mills, 1 woolen factory, 2 steam wagon manufactories, several saw-mills, 6 potteries, 3 printing-presses. Marion and Clay: flour and saw mills. The Illinois Central Railroad Company have a machine-shop at Centralia, working from 200 to 250 hands. Clark: flour and saw mills, woolen-mills. Washington and Clinton: flour and saw mills. Monroe: 3 breweries, 2 agricultural-implement factories, 2 carriage factories, 2 rope factories, 1 broom factory. Randolph: flour-mills, woolen factories, breweries, wagon and plow factories. Gallatin: 1 planing-mill and 1 furniture factory, 4 grist-mills, and several saw-mills. White: grist-mills and saw-mills, but room for more, and an excellent opening for factories of all kinds. Massac: flour and saw mills, planing-mills, &c. Johnson: flour and saw mills, and steam carding-machines.

Are there in your vicinity any railroads, or other public works requiring skilled labor, in progress? If so, how far distant?

Kane: about 1 mile from Elgin, Illinois; Winnebago, 35 to 50 miles. Lake, Whitesides, Jo Daviess, Stark, Peoria, Putnam, Bureau, Du Page, Grundy, Will, Edgar, Coles, Woodford, Morgan, Madison, St. Clair, Clinton and Edwards: none at present. McHenry: no new railroads building, but a great deal of repairing on roads that are built. Lee: none nearer than 12 miles. Stephenson: 4 railroads, all built. Rock Island: two railroads through the county are building, and several other extensive improvements making. Henry: yes, all through the division. Kendall: the Fox River Railroad now in progress through the county seat. Iroquois: two railroads passing through the entire length of the county. Livingston: railroads are being built, planned, and contemplated all over this county. Tazewell: yes; close by. McLean: 2 roads running through the county; quite a number of men wanted. Christian: 2 railroads in process of construction, traversing the county diagonally, intersecting each other at county seat; another in contemplation. Scott: one 15 miles south. Jersey: yes; about 11 miles. Greene: 1 railroad in progress, through Whitehall, 2 projected, and 1 completed through Carrolton. Fayette: 35 miles. Marion and Clay: 1 railroad running through this division, partly constructed and soon to be finished. Clark: St. Louis, Vandalia, and Terre Haute Railroad, running through the county; nearest station 12 miles from Westfield. Madison: 1 railroad in process of construction; laborers receive \$2 a day. Monroe: no pub-

lie work in progress at this time, but a railroad from St. Louis to Cairo in expectancy. Randolph: 2 miles. Gallatin: 1 railroad in course of construction, but at present at a stand-still. White: there are three railroads in contemplation and in progress in this county. Massac: yes. Johnson: 1 in progress.

If many foreign-born workmen are employed in your district, please give the preponderating nationality.

Stark: Swedes and Irish. Henry and Bureau: Swedes. Clark: Irish. Edwards: German. White: principally native-born; German laborers would be very acceptable. Marshall: Irish and German.

Please state any advantages which your district can offer to laborers, mechanics, or small farmers. Is there much land of good quality and well watered, yet unoccupied?

Kane: there is a large amount of building going on; not much land unoccupied. McHenry: all kinds of labor command a fair price, and there are plenty of farms to be rented on shares. Winnebago: the land is mostly prairie, and occupied; there are several factories requiring mechanical labor. Jo Daviess: about one-fourth of the land is unoccupied, and all well watered; this county offers advantages to lead-miners and farm hands. Whitesides: a competency can be secured by all single or married men of industrious habits. Lee: some unoccupied land of the best quality can be purchased at from \$10 to \$15 per acre, on time. Stephenson: we have a good, healthy climate, good soil, and energetic people; we want cheap labor to develop our resources. Rock Island: several extensive manufactories have recently been established at this place; a large stove foundry employing about 100 men, a glass manufactory with an eight-pot furnace, employing about 70 men, and glue works employing 20 men; there are also in this county about 18 coal mines employing about 500 men, summer and winter. Clinton: renters of large or small farms can be accommodated on reasonable terms. Kendall: good wages for laborers and mechanics, and a good chance for small farmers. Du Page: mechanics are in good demand, and also common laborers, except in the winter months; large farms are now being subdivided into 40 and 80 acre lots for the convenience of small farmers who find it profitable to keep cows and raise vegetables for the Chicago market. Grundy: small farms obtainable on rent at reasonable rates. Coles: plenty of work of every description at remunerative prices; a healthy country, excellent free schools, churches of every denomination, fine markets, rich lands, and railroads in every direction. McLean: good inducements for mechanics, healthy climate, good schools and colleges. Jersey: sober, industrious laborers, mechanics, and small farmers can do well here. Scott: The land is generally owned by small farmers and mostly occupied; but mechanics and laborers of both sexes are in great demand at fair wages. Morgan: plenty of work; labor of almost all kinds in good demand. Greene: any honest, industrious man can make a good living here, be his calling what it may; speculators are not needed. Clark, Marion, and Clay: a large amount of unimproved land yet unoccupied and for sale low; mechanics are in demand. Madison: in addition to the labor required upon the railroad, there are immense coal fields in this vicinity; many shafts are now in successful operation, and others will be opened along the line of the railroad in the spring. Monroe: there is some unoccupied land which, if drained, would make the best of farms. Gallatin: plenty of land of good quality unoccupied, and laborers of all sorts in demand at fair wages; there is a good opening for all classes of men. Johnson: vast quantities of land yet unoccupied, both low and hill lands; the hill lands are well adapted to fruit-growing,

INFORMATION FOR IMMIGRANTS.

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the low lands to grass. White: there is a large proportion of our lands yet unoccupied, and to the energetic and industrious there are few localities which offer better inducements in view of our prospect of internal improvements.

What are prices of ordinary farm-stock, sound and in good condition?

District.	Counties.	Working oxen, per pair.	Working horses, each.	Working mules, each.	Milch cows, each.	Sheep, each.	Hogs, per pound.
2	Kane	\$125	\$75 to 125	\$100 to 150	\$30 to 45	\$1 to 1½	7c.
2	McHenry	75 to 125	75 to 150	75 to 150	20 to 40	50c. to 1½	7c.
2	Winnebago	125	125	75	40	2	*\$15
2	Jo Daviess	135	100	150	35	3	*\$8
2	Whitesides	100	100	125	35	1½	6c.
2	Lee	150	100	130	45	2	6c.
3	Stephenson	100	100 to 150	75 to 150	35	1 to 3	6 to 10c.
3	Rock Island	100	100	80	30	2	4 to 10c.
4	Marshall .....	.....	125	125	35	3	7c.
5	Putnam .....	.....	120	125	75	1½	7c.
5	Stark	100	125	150	50	2½	7c.
5	Henry .....	.....	100 to 150	100 to 150	40 to 60	1 to 3	7c.
5	Bureau	100	125	125	40	2	8c.
5	Peoria	100 to 150	75 to 150	75 to 150	30 to 50	2 to 3½	7c.
6	Kendall	80 to 100	80 to 100	100	40 to 50	1½ to 3	8 to 9c.
6	Du Page	150	100 to 150	125 to 150	40 to 60	1 to 1½	8 to 9c.
6	Grundy .....	.....	100	125	35 to 40	2	7c.
7	Edgar	150	100	100	40	2	.....
7	Coles	120	80 to 120	100 to 150	40 to 60	2	8c.
8	McLean	150	100 to 150	125 to 175	45 to 60	1½	.....
9	Cass	150	100 to 150	100 to 150	30 to 50	1½ to 2	7 to 9c.
9	Fulton	120	80 to 100	100	35 to 50	1 to 1½	8c.
10	Jersey .....	.....	100	100	30 to 70	1½ to 3	8 to 10c.
10	Scott	200	80	100 to 200	60 to 80	2½	8c.
10	Morgan	200	125	150	65	5	*\$18
10	Greene	120	80 to 125	80 to 150	40 to 75	1 to 2½	8½c.
11	Clark	100	80 to 100	65 to 125	30 to 40	1	6½c.
11	Marion and Clay	120	90 to 140	100 to 125	40	2	8c.
12	Madison	150	75 to 125	150	40	1½	6c.
12	Monroe	75 to 150	80 to 150	80 to 200	40 to 60	2½ to 5	10c.
12	Clinton	140	80	80	30	2	8c.
12	Randolph	100	100	125	50	2½	6c.
12	St. Clair	70	90 to 175	80 to 150	40	7	7 to 8c.
13	Gallatin	75 to 100	75 to 150	100 to 150	18 to 30	1½ to 3	*\$25.
13	Johnson	75	100	125	25	1½	5c.
13	Edwards	100	100	100	25	3	7c.
13	White	75 to 100	80 to 140	80 to 140	15 to 35	1½ to 2	6c.
	Average	\$120 37	\$111 13	\$119 62	\$2 18	\$2 23	7½c.

* Each.

MICHIGAN.

Area, 35,995,520 acres. Population in 1870, 1,184,296.

Can land be purchased or rented in your district suitable for small farms on favorable terms?

* Lenawee, Berrien, Van Buren, Kalamazoo, Cass, Branch, Calhoun, Mecosta, Charlevoix, Grand Traverse, Ogemaw, Manistee, Ottawa, Kent, Macomb, Shiawassee, Tuscola, Saginaw, Alpena, Keweenaw, Chippewa, and Genesee: it can. St. Joseph: land can be purchased at from \$25 to \$100 per acre, and rented at from \$4 to \$10 per acre. Jackson: but few farms can be rented. Eaton: land can be purchased on better terms than it can be rented. Barry: not very favorable terms. Manistee: land can be purchased, but there is little or none to be rented. Oakland: the same. Houghton, Mackinac, and Marquette: none. Delta: only Government land. Gratiot and Huron: wild lands can be purchased on favorable terms.

* Names of counties from which returns have been received.

What is the price per acre of small improved farms? State what proportion has been under cultivation, how much is fenced, and the kind of buildings.

Lenawee: about \$60 per acre for a farm of 80 acres, fenced. Berrien: from \$35 to \$80; one-half improved, with frame buildings, and orchard. Van Buren: \$25 to \$35; about one-half under cultivation. Kalamazoo: the price of land depends on its distance from railroad stations; within 6 miles, from \$75 to \$125; in other parts of this division, \$50. Cass: \$60 to \$75; one-half under cultivation, and fenced; plain wooden buildings. St. Joseph: about \$50; nearly all the land of the county is fenced; buildings mostly of wood. Branch: from \$40 to \$60; three-fourths cleared and fenced; frame buildings. Jackson: from \$50 to \$75. Ingham: \$25 to \$100; from one-half to three-fourths fenced and under cultivation; comfortable buildings. Calhoun: from \$30 to \$75; three-fourths under cultivation. Eaton: \$20 to \$40; from one-third to one-half cleared; cheap buildings, log and frame. Mecosta: \$20 to \$40; log and small frame buildings. Barry: \$50; two-thirds under cultivation, and fenced; tolerably good buildings. Grand Traverse: \$10 to \$20. Oceana: \$25; about one-third cleared; good frame houses only. Manistee: no improved farms for sale; very little improvements in the county. Ottawa: \$50; one-third under cultivation; all improved farms are fenced; frame buildings. St. Clair: \$25; one-half cleared; buildings of logs. Ontonagon: from \$15 to \$20; poor fences and buildings. Kent: \$40 to \$60; the latter price when the buildings are good, and the farm in good order. Macomb: \$40 to \$65; about two-thirds fenced; buildings mostly of wood. Oakland: \$30 to \$60; three-fourths under cultivation, and fenced; small buildings. Houghton: there are no farms of any account in this county; some of the mining companies raise a few acres of oats, potatoes, and hay. Shiawassee: \$30 to \$60. Tuscola: \$10 to \$50; one-half improved and fenced. Mackinac: no farms selling. Delta: nearly all the wild land is heavily timbered; the timber nearly pays for clearing. Saginaw: \$15 to \$100; from one-third to two-thirds cultivated and fenced, some having fruit orchards, and substantial buildings. Alpena: about \$15; all fenced; log buildings. Keweenaw: \$10; buildings poor. Marquette: no farming done here. Chippewa: \$7; all fenced; log buildings. Genesee: \$40 to \$60; from two-thirds to three-fourths improved and fenced; with lesser improvements it can be obtained for from \$20 to \$40, according to location. Gratiot: about \$45; three-fourths improved; frame buildings. Huron: small improved farms are few and far between; not much fence; settlers live in log-houses.

What is the price per acre of unimproved land, what proportion is cleared, and how much, if any, is fenced?

Lenawee: from \$10 to \$50. Berrien: \$20 to \$60; one-half improved; frame buildings, and orchard. Van Buren: from \$5 to \$50, according to location. Allegan: \$15 to \$25. Kalamazoo: \$10. Cass: improved and unimproved are sold together, each farm being partly improved. St. Joseph: about \$25; nearly all fenced. Branch: \$20 to \$40; one-fourth cleared and fenced. Jackson: \$25 to \$100; timber land; entirely unimproved. Ingham: from \$6 to \$75. Calhoun: no unimproved land in separate tracts to sell; the land is generally fenced. Eaton: \$10 to \$20; what we call unimproved land has no clearing or fence. Mecosta: \$8 to \$20; none cleared or fenced. Barry: \$10 to \$50. Grand Traverse: \$2 to \$10; wholly unimproved. Oceana: average price for wild land without fence, \$7. Manistee: from \$1 to \$10. Ottawa: \$10; one-third of all land in this division is cleared. St. Clair:

\$5 to \$20. Ontonagon: very little of that class of land here. Kent: \$5 to \$10. Macomb: from \$20 to \$60; about three-fourths cleared. Oakland: not much land unimproved. Houghton: \$10 to \$50. Shiawassee: \$5 to \$20. Tuscola: \$3 to \$20; none cleared. Mackinac: none. Delta: \$10. Saginaw: \$2 50 to \$15; none cleared or fenced. Alpena: \$2 to \$5; no clearing, and no fence. Keweenaw: \$3. Marquette: \$5 to \$10. Chippewa: \$10; thousands of acres burnt over; cattle and horses roam over these tracts at will. Genesee: from \$8 to \$30, according to location and quality. Gratiot: \$5 to \$15; no clearing nor fencing. Huron: \$2 to \$10.

What is the yearly rent of small improved farms? If rented on shares, what share does the owner receive? Does the latter provide stock, implements, or seeds?

Berrien: the owner receives one-half the crop on good farms, and one-third on poor ones. Van Buren: about \$4; if on shares and owner provides one-half of stock, implements, seeds, &c., he receives one-half the product. Allegan: about \$5 where improvements are made; shares, same as above. Kalamazoo: no farms rented for cash; owner receives one-half the crop, and furnishes one-half the seeds. Cass: \$4, or one-half the product. St. Joseph: one-half, each furnishing half. Branch: owner receives one-half or one-third, according as he furnishes stock, implements and seeds, or otherwise. Jackson: \$4 for the improved portion of the farm; shares, same as above. Ingham: one-third to owner. Calhoun: owner half, furnishing half. Eaton: \$3 to \$4; shares, same as above. Mecosta; owner one-third. Barry and Ottawa: shares, as above. Grand Traverse: very seldom rented except on shares; shares, as above. Oceana: about \$2; shares, as above. Manistee: none under rental. Ottawa: shares, as above. Lenawee: \$3 to \$5. St. Clair: \$10 to \$20; shares, as above. Ontonagon: from \$100 to \$300; none rented on shares. Kent: owner receives one-half or one-third the produce, according as he provides stock, &c., or otherwise. Macomb, Tuscola, and Genesee: the same. Oakland: from \$2 to \$4; shares, as above. Houghton: some mining companies rent to their laborers, about half an acre each, and charge them therefor \$5 each; said laborers raise potatoes, and invariably get a good crop. Shiawassee: about \$3; shares, owner one-third, he furnishing nothing. Saginaw: shares, one-third. Alpena: farms are rented only on shares; the owner receives one-half the products and furnishes one-half the seeds. Keweenaw: about \$1. Gratiot: about \$4; shares, one-third.

What are the chief articles of production, and what are the present prices of two or three of them?

Articles of production.	Prices.	Counties.
Wheat.....per bushel..	\$0 80 to \$1 00	St. Joseph, Cass, Eaton.
Do.....do.....	90 to 95	Van Buren, Branch, Allegan.
Do.....do.....	1 00	Jackson, Berrien, Mecosta, Barry, Grand Traverse, Ottawa, Ontonagon, Kent, Oakland, Shiawassee, Tuscola, Genesee, Gratiot, Huron.
Do.....do.....	1 00 to 1 15	Oceana, Ingham, Kalamazoo.
Do.....do.....	1 25	Calhoun, St. Clair, Saginaw.
Corn.....do.....	50	Barry, Gratiot.
Do.....do.....	60	Van Buren, Oakland, Ingham.
Do.....do.....	65	Allegan, Kalamazoo, St. Joseph, Calhoun, Ottawa.
Do.....do.....	75	Berrien, Cass, Eaton, Shiawassee.

Articles of production.	Prices.	Counties.
Corn..... per bushel..	\$0 80	Branch, Kent, St. Clair.
Oats do.....	\$0 30 to 33	Ingham, Gratiot.
Do..... do.....	40	Van Buren, Calhoun, Barry, Oakland, St. Clair, Macomb.
Do..... do.....	50	Branch, Kent, Tuscola.
Do..... do.....	60	Grand Traverse, Saginaw.
Do..... do.....	70	Oceana, Houghton, Keweenaw.
Do..... do.....	75	Chippewa, Mackinac, Alpena.
Do..... do.....	85	Ontonagon.
Potatoes do.....	30	Van Buren, Ingham, Grand Traverse, Oakland.
Do..... do.....	40	St. Joseph.
Do..... do.....	50	Mecosta, Oceana, Mackinac, Chippewa.
Do..... do.....	50 to 75	Alpena, Manistee, St. Clair, Keweenaw, Huron.
Do..... do.....	1 00	Ontonagon, Houghton, Cass.
Iron ore..... per ton..	5 00	Marquette.

What is the distance to a market town, a railroad station, or a steamboat landing?

Berrien: from 1 to 10 miles. Van Buren: to a market town and railroad station 10 miles; to a steamboat landing 20 miles. Allegan: 3 or 4 miles. Kalamazoo: the Michigan Central Railroad crosses the county from east to west, and the northern branch of the Southern Michigan and Northern Indiana Railroad from north to south. Cass: greatest distance 12 miles. St. Joseph: railroads through the county in two directions, and two others in process of construction. Branch: Coldwater, in the center of the county, is a market town and a railroad station on the Michigan Southern Railroad. Jackson: average distance about 6 miles. Ingham: from 1 to 25 miles. Calhoun: the Michigan Central Railroad runs through the county, furnishing a good market easy of access to all parts of the county. Eaton: the Grand River Valley Railroad intersects this county diagonally, and has a station every 6 or 10 miles. Mecosta: 3 to 10 miles to market town, 15 miles to railroad. Lenawee: two railroads through the county; Adrian City is the county seat, and there are numerous stations and villages. Charlevoix: the county town is a steamboat landing, and it is about 200 miles to a railroad station. Barry: we have a railroad at Hastings. Grand Traverse: steamboat landings are numerous in this region. Oceana: at our county town is a steamboat landing and good harbor. Manistee: Manistee City, situated in the southwest part of the county, is a lake port. Otawa: Holland is our market town and steamboat landing; no railroad station within 22 miles. St. Clair: from 1 mile to 20 to railroad and steamboat. Ontonagon: our county town is situated on the bank of the river, whose mouth is a good harbor. Kent: to a railroad station 13 miles. Macomb: 23 miles to Detroit. Oakland: about 10 miles to a railroad station. Houghton: steamboat landing in the center of this county; 90 miles to railroad station. Shiawassee: five railroad depots in this county. Tuscola: 20 miles. Mackinac: $\frac{1}{2}$ mile. Delta: several railroads and steamboat landings. Saginaw: from 3 to 10 miles. Alpena: from 1 mile to 30. Keweenaw: not over 10 miles. Marquette: 12 miles from mines to steamboat navigation. Chippewa: from 1 to 3 miles to steamboat landing. Genesee: railroad runs through the county north and south; good market at all the stations. Gratiot: 22 miles

from county seat to railroad station. Huron: numerous steamboat landings on the shores of Lake Huron and Saginaw Bay. This county is two-thirds surrounded by water.

What is the general quality of land and the kind of timber?

Berrien: sandy loam; prairie oak, beech, maple, walnut, white-wood, &c. Van Buren: the soil is varied; timber—whitewood, oak, beech, poplar, pine, hemlock, and ash. Allegan: loam and clay; timber—beech and maple. Kalamazoo: the land is of good quality and well adapted to farming purposes; the timber is principally maple, beech, and oak. Cass: prairie and oak openings; some heavy timber. St. Joseph: sandy loam; timber principally oak, some beech, maple, and mixed timber. Branch: the land is generally of good quality; timber—beech, maple, and oak. Jackson: land generally good; timber mostly oak. Ingham: gravelly loam; timber—from heavy beech and maple to light oak openings. Calhoun: gravelly loam; timber chiefly oak. Eaton: loam and gravel; timber—beech, maple, oak, ash, and walnut upon the upland, with elm, black ash, and turmeric upon the lower. Mecosta: land good; beech and maple. Charlevoix: sandy loam; timber—beech and maple. Lenawee: sand and clay; almost every kind of good hardwood timber. Barry: sandy loam; timber in some parts all oak, and in others a mixture of beech, maple, whitewood, and nearly all kinds. Grand Traverse: land generally good; timber—maple, beech, basswood, elm, ash, cedar, pine, and hemlock. Oceana: sandy loam; timber principally hardwood. Manistee: sandy to sandy loam; timber on farm lands, maple and beech. Ottawa: on the west side of this division the land is light and sandy; timber—hemlock, pine, oak, &c.; south and east side the land is clay, with all hard timber, beech, maple, &c. St. Clair: some parts clay, some sandy; some hardwood, but mostly pine. Ontonagon: sandy loam; hemlock, maple, and birch. Kent: the soil varies from stiff clay to a light sand—generally a loam and very productive; timber—oak, beech, maple, elm, basswood, and pine. Macomb: soft and hard wood mixed; oak, ash, elm, whitewood, beech, and maple. Oakland: clay, loam and sandy plains; oak timber. Houghton: red or black sand; poor quality; maple, hemlock, birch, and pine. Shiawassee: good land; timber—oak and maple. Tuscola: ranging from sand to clay; every variety of timber; pine, hemlock, maple, beech, oak, ash, elm. Mackinac: poor; beech and maple. Delta: good for wheat, grass, and oats. Saginaw: mostly dark loam; oak, maple, hickory, elm, and beech. Alpena: sandy loam and clay. Keweenaw: fair quality; birch, maple, hemlock, pine, cedar, spruce, poplar. Marquette: sandy; pine and hemlock. Chippewa: clay and sandy loam; sugar-maple and evergreens. Genesee: clayey loam predominates, with limestone gravel; timber a mixture of hard and soft with some pine. Gratiot: sandy loam; beech, maple, oak, pine, basswood, ash, hemlock. Huron: general character of the soil a mixture of clay and loam; pine, hemlock, white cedar, and the different kinds of hard wood.

For what kind of labor is there a demand?

Lenawee: farm labor chiefly. Berrien: common laborers principally. Van Buren: farm hands and wood-choppers. Allegan, St. Clair, and Saginaw: all kinds, skilled and common. Kalamazoo: all laborers seem to find employment. Cass: farm labor. Branch, Ingham, Eaton, Macomb, Oakland, Shiawassee, Gratiot: farm labor principally. Jackson: masons, carpenters, and common laborers. Calhoun: mechanics and farm laborers. Mecosta: lumbering, in winter. Manistee: lumbermen and servant girls. Ontonagon: miners and common laborers. Kent: farm labor and labor in the pine woods, cutting and hauling logs, and working

in the mills. Houghton: miners, choppers, shovelers, teamsters, &c. Tuscola: farm and lumbering: Mackinac: fishermen. Delta: male laborers and female house servants. Alpena: millmen and lumbermen. Keweenaw: mining and surface labor. Marquette: miners. Chippewa: miners and fishermen and voyagers. Genesee: farming and lumbering. Huron: mill and lumbering.

What mills or factories, if any, are in operation or in progress requiring skilled labor?

Lenawee: railroad machine-shop and two woolen factories. Berrien: principally flour and lumber mills. Van Buren and Allegan: flour-mills, saw-mills, and woolen-mills. Kalamazoo: paper-mill, flour-mills, and saw-mills. Cass: flour-mills and a few small planing-mills and door factories. St. Joseph: flour and saw mills, iron founderies, woolen-mills, paper-mills, and agricultural implement factories; labor in supply fully equal to the demand. Branch: grist and saw mills, woolen factories, furnaces, &c. Jackson: about 20 saw-mills, 16 grain-mills, 3 stoneware factories, wagon and carriage factories, and a multiplicity of other factories. Ingham: none of any note. Calhoun: woolen-mills, flour-mills, threshing machine manufactories, Novelty Works for agricultural implements, extension tables, &c. Eaton and Mecosta: 8 saw-mills and 3 flour-mills. Barry: only furnaces. Grand Traverse: none but lumber and flour mills. Oceana: saw-mills, planing-mills, shingle-mills, and machine-shop. Manistee: no mills except 20 steam saw-mills, which employ about 65 men each. Ottawa: grist-mills, saw-mills, sash, door and blind, stave and furniture, and agricultural implement factories. St. Clair: saw and grist mills, carriage and wagon factory. Ontonagon: stamp-mills, engines, &c., around the mines. Kent: saw-mills, flour and grist mills, paper-mill, and cigar factory. Oakland: woolen-mill. Houghton: 5 steam saw-mills, 1 sash, door and blind factory, 2 founderies and machine-shops, 1 copper-smelting works. Shiawassee: 7 flour-mills, 3 woolen-mills. Tuscola: woolen-mill, saw-mills, &c. Mackinac: none. Delta: saw-mills and blast-furnaces. Saginaw: saw-mills, shingle and lath mills, planing-mills, blind, sash and door factories, cabinet-work, wheelwright, and chair factories; all kinds of wood-turning, machine-shops, paper-mills, and salt manufactories. Alpena: 9 steam saw-mills, 2 water-power saw-mills, 1 sash, door and blind factory, 1 foundery and machine-shop, one siding-mill and 8 shingle-mills, 4 portable grist-mills for grinding feed for stock. Keweenaw: stamping-mills, saw-mills, fuse factory, brewery, soap manufactory, and wagon-shops. Chippewa: saw-mill and shingle-mill. Genesee: 8 saw-mills, turning out 70,000,000 feet of lumber per year, in Flint City, and 3 shingle factories, other saw-mills, &c., throughout the county; 15 flour-mills, 2 woolen factories, &c. Gratiot: saw-mills and grist-mills; no factories.

Are there in your vicinity any railroads or other public works in progress requiring common labor? If so, how far distant?

Lenawee: not nearer than 40 miles. Berrien: a railroad is being built through our city. Van Buren: yes; within the county. Allegan: yes, and building another. Kalamazoo: a railroad is being built from this place to South Haven, a port on the eastern shore of Lake Michigan, 39 miles distant; also a road north and south through the county. Cass: 1; 10 miles distant. St. Joseph: 2 railroads through the county; plenty of laborers. Branch: several railroads are in progress, from 12 to 20 miles distant from the city of Coldwater, the county seat. Jackson: 5 railroads completed, another in progress. Ingham: yes; within from 4 to 20 miles. Calhoun: 1 railroad is in course of construction. Eaton: Grand River Valley Railroad complete and the Peninsular in progress. Me-

costa: a railroad is being constructed across this county. Barry: there are some railroads being built in Michigan. Grand Traverse, Manistee, Ontonagon, Oakland, Shiawassee, Mackinac, Delta, Alpena, Chippewa, and Huron: none at present. Oceana: a railroad about 50 miles distant. Ottawa: 1 railroad in progress. St. Clair: 1 completed 40 miles out of the city of Port Huron. Kent: 1 in progress 8 miles distant. Macomb: 1 in progress through the county. Houghton: ship canal, 8 miles from this village, requiring a large number of laborers, now in progress. Tuscola: plank roads. Saginaw: yes; in the immediate vicinity. Keeweenaw: a ship canal 40 miles distant. Genesee: 1 through the county being built. Gratiot: 1 soon to be commenced.

If many foreign-born workmen are employed in your district, please give the preponderating nationality.

Berrien, Cass, Ingham and Van Buren: Irish. Allegan: German. Kalamazoo: the German laborers seem to be the most numerous. St. Joseph: not many foreigners; some Germans. Branch: but few; mostly Irish. Jackson: German. Eaton: Irish and Swiss; Irish preponderate. St. Clair: Scotch, Irish, and Germans. Macomb: German. Oakland: German. Lenawee: quite a German population.

Please state any advantages which your district can offer to laborers, mechanics, or small farmers. Is there much land, of good quality and well watered, yet unoccupied?

Lenawee: not much land unoccupied. Berrien: a good deal of uncultivated land suitable for fruit or grain, well watered, can be purchased at reasonable rates. Van Buren: great inducements for small farmers; land can be bought for \$12 per acre; good market for wood. Allegan: the fact that our county is comparatively new. Kalamazoo: some good land yet unoccupied; a good farming district. Cass: small farmers can do well here. St. Joseph: fine productive land, easily tilled, but very little of it unoccupied. Branch: considerable land of good quality, well watered, yet unoccupied. Jackson: no land unoccupied. Ingham: quite a large amount of good land owned by non-residents; a fine agricultural district, with an abundance of wood, coal, and other minerals, with the capitol of the State for its center; having 3 railroads already completed, and 3 others in process of construction, together with fine water-power. Calhoun: good soil, good climate, facilities for shipping; no land unoccupied. Eaton: masons, carpenters, and joiners find plenty of work at good wages; farming is the principal occupation, and it pays well on a large or small scale; plenty of excellent land unoccupied. Mecosta: much good land yet unoccupied. Barry: not much land that is desirable, except some in the hands of speculators who hold it at high prices. Grand Traverse: cheap lands and a remarkably healthful climate are the chief advantages. Oceana: plenty of land that is not cultivated, but it is in the hands of speculators. Manistee: this county consists of prime lands to a great extent, which are of little value for farming purposes; fruit-growing, with Chicago, Milwaukee, and the far West for markets, is the crowning industry of the eastern shore of Lake Michigan. Ottawa: good opportunity for small farmers to make money. St. Clair: plenty of wild land to be had at from \$5 to \$20 per acre; from one to ten years to pay it in, at 7 per cent. interest. Ontonagon: plenty of room for all kinds of laborers and miners; but what we need most is agricultural labor; we want immigrants to come in and take up and cultivate the Government land, and produce the necessities of life for the miners; at present the principal part of our supplies have to be brought here from a distance, for want of agricultural labor at home. Kent: we have a healthy climate, and laboring men find constant employment at fair wages; there is considerable un-

improved land, some of it valuable on account of the timber upon it, and some oak openings valuable for agricultural purposes. Oakland: not much wild land. Shiawassee: one-third of the land in the county is unoccupied. Tuscola: as fine farming lands as can be found anywhere in this latitude, and plenty for sale as yet uncultivated. Mackinac: land is poor for farming, and very little farming is done. Delta: land all unoccupied; wages for common labor \$2 per day; we need men who will turn their attention to agricultural pursuits. Saginaw: a demand for all kinds of labor at remunerative prices; much land of good quality, and well watered, is yet unoccupied. Alpena: good mechanics are wanted very much; farmers are a great necessity, as there is a large quantity of unoccupied farming land in this locality. Keweenaw: plenty of work for miners, carpenters, and common laborers and blacksmiths; abundance of good land, well watered, and unoccupied. Marquette: miners are the only men needed here. Chippewa: thousands of acres unoccupied, and one of the best markets in the Northwest for any quantity of hay, oats, and potatoes; steamers and sail vessels stop here daily during the season of navigation. Genesee: considerable unoccupied land of good quality. Gratiot: the country is improving very fast, and blacksmiths, masons, cabinet-makers, coopers, carpenters, painters, shoemakers, tailors, and wheelwrights could find good locations and constant employment. Huron: plenty of land unoccupied; a well-timbered region; no better location can be found for the cultivation of fruit; the deep waters of Lake Huron and Saginaw Bay nearly surround us, and give us what is called a water climate.

What are the prices of ordinary farm stock, sound and in good condition?

Districts.	Counties.	Working oxen, per pair.	Working horses, each.	Working mules, each.	Milch cows, each.	Sheep, each.	Hogs, per lb., live weight.
1	Lenawee	\$150	\$150		\$50	\$1	8 to 10.
2	Berrien	\$120 to 210	\$125 to 160	\$100 to 150	\$30 to 50	\$1½ to 2½	8 to 10
"	Van Buren	150	150	100	40	2	6
"	Allegan	150	150	125	40	1½	8
"	Kalamazoo	150	150		50	2½	6
"	Cass	130	125 to 200	175 to 250	40	2	5 to 7
"	St. Joseph	150	100		30 to 50	1½	8
"	Branch	150	150	125	40	1½	7
3	Jackson	130	100	130	40	2	7
"	Ingham	150	125	150 to 200	45	1½	7
"	Calhoun	150 to 200	100 to 200		35 to 70	1½ to 2½	8
"	Eaton	150 to 200	150		40 to 60	1 to 2	7 to 8
4	Mecosta	200	100 to 150		25 to 50	2 to 3	
"	Charlevoix	100	150		50		
"	Barry	150	150	200	40	2	8
"	Grand Traverse	125 to 200	125 to 200	125 to 200	35 to 63		
"	Oceana	200	200	150	40	5	10
"	Ottawa	160	175	125	55	3	10
"	Kent	150	150	150	50	2½	7
"	Manistee	150	175		50	3	10
5	Macomb	150	125	125	30 to 50	1 to 3	5
"	Oakland	200	150	200	40	2	
"	St. Clair	150 to 250	100 to 200	100 to 200	35 to 75	1 to 10	
2	Ontonagon	200	100		80 to 100		
"	Houghton	200	150		80		
"	Chippewa	200	150		50		
"	Shiawassee	150	150 to 200		35 to 50	3	7
"	Tuscola	150	150	125	40	1½	8
"	Mackinac		100 to 150		50 to 70	4	
"	Delta	200	200		55		
"	Saginaw	175	150		45	1½	10
"	Alpena	200	150 to 200	100 to 150	60	3	8
"	Keweenaw	150	200	75	75	3	10
"	Marquette	150	200	150	75		
"	Genesee	200	150	200	45	1½	6 to 8
"	Gratiot	125	125	125	35	1	8
"	Huron	180	125		55	5	
	<i>Average</i>	\$164 03	\$149 10	\$144 28	\$40 53	\$2 37	7.9-10

WISCONSIN.

Area, 34,511,360 acres. Population in 1870, 1,055,153.

Can land be purchased or rented in your district suitable for small farms on favorable terms?

* Manitowoc: seldom rented; plenty of wild land for sale. Kenosha, Milwaukee, Waukesha, Dane, Jefferson, La Fayette, Sauk, Grant, Iowa, Crawford and Richland, Sheboygan, Calumet, Shawanaw, Brown, Waupaca, Green Lake, La Crosse, Chippewa, Juneau, Polk, Trempealeau, Eau Claire, and Pepin: yes. Burnett: Government lands can be had on the usual terms.

What is the price per acre of small improved farms? State what proportion has been under cultivation, how much is fenced, and the kind of buildings.

Manitowoc: from \$50 to \$100 per acre, according to situation and improvements. Walworth: \$40 to \$60; nearly all under cultivation and fenced; buildings chiefly of wood, some of brick. Kenosha: \$35 to \$100. Milwaukee: \$50 to \$100. Waukesha: \$20 to \$75. Dane: \$25 to \$50. Rock: about \$50; nearly all under cultivation; buildings pretty good. Jefferson: \$30 to \$40. La Fayette: \$20 to \$50. Sauk: from \$10 to \$50. Grant: average, \$50 for prairie land; \$25 to \$30 for timber land. Iowa: \$25 to \$50; all fenced; three-quarters under cultivation; buildings ordinary. Crawford and Richland: \$15 to \$25; one-half improved and fenced. Burnett: from \$5 to \$10. Sheboygan: \$40 to \$50; about two-thirds improved; all fenced. Calumet: \$20 to \$70. Shawanaw: \$25 to \$30; a small proportion fenced; frame and log buildings. Brown: \$15 to \$30; one-quarter to one-third under cultivation. Waupaca: \$20 to \$30; one-half under cultivation; frame buildings. Green Lake: from \$10 to \$30; all under fence, with wooden buildings. Marathon: this is a lumbering district; poor farms. La Crosse: \$10 to \$20; one-half fenced; small buildings. Chippewa: \$20; one-quarter under cultivation and fenced; small frame or log buildings. Juneau: one-half cultivated and one-half fenced. Polk: from \$10 to \$100; cheap buildings. Trempealeau: \$5 to \$25; one-third under cultivation, nearly all fenced, and mostly frame buildings. Eau Claire and Pepin: \$12 to \$20.

What is the price per acre of unimproved land, what proportion is cleared, and how much, if any, is fenced?

Manitowoc: \$5 to \$10 per acre. Walworth: unimproved land is mostly timber land held for the wood, and is worth from \$15 to \$75, according to the amount and quality of timber. Kenosha: \$15; almost all fenced; this is prairie; woodland is worth from \$40 to \$100. Milwaukee: no unimproved land. Waukesha: \$25 to \$40. Dane: such land is scarce here; \$15 to \$20. Jefferson: \$10. La Fayette: very little unimproved. Sauk: from \$5 to \$15. Grant: \$25 to \$40. Iowa: \$10 to \$20; prairie; no clearing required. Crawford, Richland, and Burnett: from \$2 to \$5; wholly unimproved. Sheboygan: from \$15 to \$20; none cleared nor fenced. Calumet: \$8 to \$30. Shawanaw: from Government price, \$1 25, to \$5; no fences. Brown: \$5 to \$15; about one-third cleared. Waupaca: \$2 50 to \$5, and a good deal at Government price, and some State land which is very good, from 62½ cents to \$2. Green Lake: \$5 to \$8. Douglas: wild land from \$1 25 to \$10. La Crosse: \$5 to \$10. Chippewa: \$3 to \$7. Juneau: wild land, \$5. Polk: \$1 25 to \$6. Trempealeau: \$1 25 to \$10; mostly prairie, unfenced.

* Names of counties from which returns have been received.

Eau Claire and Pepin: \$2 50 to \$10; none fenced; part prairie and part timber.

What is the yearly rent of small improved farms? If rented on shares, what share does the owner receive? Does the latter provide stock, implements, or seeds?

Manitowoc: usually rented on shares; owner receives one-third the product, unless he furnishes stock and implements and seeds, in which case he receives one-half and sometimes three-fifths. Walworth: \$5; on shares same as above. Kenosha: \$3 to \$5; generally on shares, each furnishing one-half and dividing the product equally. Milwaukee: owner receives one-third the product, or one-half when he furnishes seed, team, &c. Waukesha: the same. Dane: the same. Rock: \$4; shares, each furnishes half, and each takes one-half the crop. Jefferson: owner one-third of crop, or if he furnishes seeds, team, &c., one-half. La Fayette, Sauk, Grant, Iowa, Crawford, and Richland: the same as above. Burnett: no farms to rent. Sheboygan: \$4 for all that is improved; on shares, one-half, each party finding one-half the stock, &c. Calumet: owner one-third, or if he furnishes team, &c., one-half. Shawanaw: \$3; shares, as above. Brown, Waupaca, and Green Lake: the same. La Crosse: owner receives one-third, furnishes nothing; or two-thirds and furnishes all except labor. Chippewa: one-third and one-half, according as one or the other furnishes implements, &c. Juneau: where owner finds seeds, one-half; where he provides team also, two-thirds. Polk: wheat land is let, and seeds found, for one-third of crop. Trempealeau: \$2 50 per acre, or one-half the crop, the owner furnishing seeds and implements, or one-third and furnishing nothing. Eau Claire and Pepin: \$5 per acre, or one-third of crop.

What are the chief articles of production, and what are the present prices of two or three of them?

Articles of production.	Prices.	Counties.
Wheat.....per bushel..	\$0 55	Chippewa.
Do.....do.....	60	Polk, Trempealeau.
Do.....do.....	65	Crawford, Richland, Sauk.
Do.....do.....	70	Walworth.
Do.....do.....	\$0 70 to 90	Calumet, Eau Clair, Juneau.
Do.....do.....	75	Dane, Jefferson, Grant, Iowa, Waupaca.
Do.....do.....	80	Kenosha, Sheboygan, Eau Claire, Pepin.
Do.....do.....	85	Waukesha, Milwaukee.
Do.....do.....	95	Rock, Green Lake, Brown.
Do.....do.....	1 00	Shawanaw.
Do.....do.....	1 15	Manitowoc.
Do.....do.....	1 25	Burnett.
Corn.....do.....	40 to 45	La Fayette, Iowa.
Do.....do.....	48	Trempealeau.
Do.....do.....	50	Walworth, Jefferson, Sauk, Grant, Juneau, Green Lake.
Do.....do.....	50 to 65	Waupaca, Rock, Waukesha.
Do.....do.....	1 00	Polk.
Oats.....do.....	35	Walworth, Jefferson, Sauk, Grant, Eau Claire, Pepin.
Do.....do.....	40	Iowa, Manitowoc, Kenosha, Milwaukee, Waukesha, Dane, Crawford, Richland, Waupaca, Chippewa, Juneau, Trempealeau, Green Lake.
Do.....do.....	50	Brown, Polk, Rock.
Do.....do.....	60 to 70	Shawanaw, Burnett.
Barley.....do.....	50	Grant.
Do.....do.....	75 to 90	Waukesha.

Articles of production.	Prices.	Countries.
Barley..... per bushel..	\$0 80	Rock.
Do..... do.....	90	Kenosha.
Do..... do.....	1 00	Manitowoc, Dane, Burnett.
Potatoes..... do.....	60	Shawanaw, Walworth.
Do..... do.....	1 00	Burnett, Douglas.
Rye..... do.....	55	Juneau.
Do..... do.....	80	Brown, Walworth.
Do..... do.....	70	Milwaukee.
Do..... do.....	75	Rock.

What is the distance to a market town, a railroad station, or a steamboat landing?

Manitowoc: our village has a commodious harbor on Lake Michigan, and is the market for our county, as also the shipping port. Walworth: railroad stations are abundant. Kenosha: 7 miles farthest point from a railroad station; steamboat landing on the eastern border of the county. Milwaukee: railroads and plank roads run through the county. Waukesha: from 3 to 10 miles. Dane: plenty of railroads. Rock: 4 railroads through this county; average distance of farms, $3\frac{1}{2}$ miles from stations. Jefferson: a railroad through this county. La Fayette: the same. Sauk: 14 miles. Grant: 8 miles. Iowa: 2 railroads, easy of access. Crawford and Richland: from 1 to 30 miles. Burnett: 15 miles. Sheboygan: 6 or 8 miles. Calumet: 2 to 25 miles. Brown: longest distance, 16 miles. Waupaca: 26 miles to railroad; steamboat navigation through the eastern part of the county. Green Lake: 15 miles. Marathon: 100 miles. Douglas: 1 mile and upward. La Crosse: average 10 miles. Chippewa: average 15 miles. Juneau: from 2 to 10 miles. Polk: a good home market. Trempealeau: about 30 miles. Eau Claire and Pepin: from 1 to 20 miles.

What is the general quality of land, and the kind of timber?

Manitowoc: in the western and southern portions of the county, the land is good; timbered principally with oak, beech and maple. Walworth: the land is a rich, black loam, with clay subsoil; timber mostly oak, some maple, and hickory. Kenosha: clayey loam and gravelly; oak chiefly. Milwaukee: quality good; hardwood timber. Waukesha: good soil; oak, maple, and basswood. Dane: the land is good; timber plenty and of almost all kinds. Rock: mostly rich prairie; oak openings. Jefferson: medium quality; maple, oak, &c. La Fayette: quality of land unsurpassed; oak, beech, hickory, &c. Sauk: good; prairie; oak openings, and heavy hard and soft wood timber land. Grant: prairie land, first-class; principally oak timber. Iowa: prairie land of good quality; oak and maple. Crawford and Richland: good; oak, hickory, basswood, elm, hard and soft maple. Burnett: good clay subsoil land; hardwood timber. Sheboygan: red clay soil; oak, maple, basswood, and pine. Calumet: clay soil; oak, maple, beech and linden tree. Shawanaw: of good quality; beech and maple timber, with heavy forests of pine in portions of the county. Brown: heavily timbered; pine, oak, maple, beech, basswood, birch, &c. Waupaca: sandy loam and clay; pine, maple, birch, oak, hickory, elm, basswood, and butternut. Green Lake: good; oak, maple, &c. Marathon: land sandy; pine. Douglas: clay soil; soft timber. La Crosse: some poor and sandy, some first quality; oak, ash, and hackberry. Chippewa: general quality good; Norway white pine, white and black oak, maple, butternut, hemlock,

cedar, and basswood. Juneau: rather sandy; timber—white oak, &c. Polk: black, loamy soil on prairie, clay subsoil in timber land; oak, maple, basswood, poplar, &c. Trempealeau: rich, alluvial soil, with some sand; burr, black, and white oak, cottonwood, maple, ash. Eau Claire and Pepin: soil sandy loam; white pine and the hard woods.

For what kind of labor is there a demand?

Manitowoc, Waukesha, Dane, Iowa, Calumet: farm labor principally. Walworth: labor here is abundant. Kenosha: good farm hands, not afraid to work, particularly in the summer season. Milwaukee: building railroads, manufacturing, farming, &c. Dane: farm hands and female help. Rock: nearly all kinds of labor in good demand, in summer particularly. Sauk: farm and mechanical labor. Grant: all kinds, skilled and unskilled. Crawford and Richland: mechanics of nearly all kinds, and farm labor. Burnett: farmers and lumbermen. Sheboygan: farmers and mechanics. Shawanaw: lumbermen. Brown: lumbermen chiefly; also farming and fishing and manufacturing. Waupaca: men to settle the country and make homes for themselves and families. Green Lake: all kinds of mechanics and common laborers. Marathon: men for lumbering. Douglas: chopping wood and lumbering. Chippewa: all kinds, especially lumbermen in the winter, and men for saw-mills in the summer. Juneau: farm, lumbering, and railroad laborers are in demand. Polk: farm labor and lumbermen. Trempealeau: common laborers and farm hands. Eau Claire and Pepin: lumbering in winter, mills in summer.

What mills or factories, if any, are in operation or in progress requiring skilled labor?

Manitowoc: 1 woolen-mill, 2 chair and furniture factories, 1 tub and pail factory, a number of saw-mills and shingle-mills, 1 stave factory. Walworth: 16 grist-mills, 1 woolen factory, 1 reaper and seeder manufactory, and several small manufacturing establishments. Kenosha: 4 wagon factories, 2 iron foundries, 4 tanneries. Milwaukee: flour-mills, foundries, wagon-shops, planing-mills, sash and door factories. Waukesha: woolen-mills and agricultural machine factories. Dane: a few grist-mills, and foundries, machine-shops, wagon-shops, and woolen-mills. Rock: paper-mills, woolen factories, foundries, and furniture shops. Jefferson: woolen factories, furniture, farming implement, wagon and sleigh and carriage factories. La Fayette: none but grist-mills. Sauk: 2 woolen factories, 1 furniture establishment, 1 hub and spoke factory, 1 flour-mill, three saw-mills. Grant: about 36 grist-mills, 6 small woolen factories, and other manufacturing shops. Iowa: woolen-mills, machine-shops, zinc-smelters. Crawford and Richland: flour, saw, and woolen mills, wagon, sleigh, and plow factories, cooper shops, fanning-mills, and cabinet-makers' shops. Burnett: 2 saw-mills, 1 grist-mill. Sheboygan: foundries, wagon factories, woolen and grist mills, chair factories. Calumet: very few factories or mills, with the exception of grist and saw mills. Shawanaw: grist and saw mills. Brown: lumber and shingle mills, iron foundries, and blast-furnaces. Waupaca: 2 stove foundries, 11 large flour-mills, 13 saw-mills, 2 large tanneries, 1 woolen-mill, 2 foundries, &c. Douglas: saw-mills. La Crosse: saw-mills, flour-mills, foundries, plow works, machine-shops, sash, door, blind, and wooden-ware furniture factories, marble works, tinners' shops, agricultural implement, and stone-cutting establishments, &c. Chippewa: saw, grist, and planing mills and machine-shops. Juneau: grist and saw mills, sash and blind factories, machine-shops, and foundries. Polk: grist and saw mills. Trempealeau: flour and grist mills. Eau Claire and Pepin: flour, saw, and shingle mills.

Are there in your vicinity any railroads or other public works in progress, requiring common labor? If so, how far distant?

Manitowoc: yes; about 40 miles. Walworth: 1 railroad within the county. Kenosha: none in the immediate vicinity. Milwaukee: laborers are employed here to go hundreds of miles to work on railroads. Rock: none in progress, but those completed need many laborers for repairs. Sauk: railroad prospects fair. Grant: 1 railroad being built. Crawford and Richland: yes; 3 miles distant. Burnett: 1 here. Shawanaw: a military road from this place to Lake Superior. Brown: 1 railroad in process of construction in this county. Waupaca: work in the lumber woods, and on the river. Douglas: yes; 5 miles distant. La Crosse: 100 miles west. Chippewa: from Chippewa Falls to Augusta, 23 miles; to Eau Claire, 10 miles, now in progress. Juneau: 1 in this immediate vicinity. Polk: 25 miles distant. Trempealeau: 1 railroad now finished. Eau Claire and Pepin: West Wisconsin Railway now building here.

If many foreign-born workmen are employed in your district, please give the preponderating nationality.

Manitowoc: principally German. Walworth and La Fayette: Irish. Kenosha and Milwaukee: German. Waukesha: three-fifths German, remainder Norwegians and Danes. Dane: Norwegians and Germans. Rock: Norwegians and Irish. Jefferson: Germans and Irish. Sauk: principally German. Grant: largely German. Iowa: German, Irish, and English as miners. Crawford and Richland: Germans, Irish, Bohemians, and Norwegians. Burnett: Swedes and Norwegians. Sheboygan: German. Calumet: German and Irish. Shawanaw: German and French. Brown: Germans, Belgians, Irish, Dutch, Norwegians, and French Canadians. Waupaca: Scandinavians and a good many Germans. Green Lake and Marathon: German. Douglas: Swedes. La Crosse: German in shops, and Irish on public roads. Chippewa: French, Irish, German, Scandinavians, and Americans, in the order of proportion. Polk: Scandinavians and Germans. Trempealeau: Germans, Poles, and Norwegians. Eau Claire and Pepin: about one-half German, one-fourth Irish, and one-fourth Norwegians.

Please state any advantages which your district can offer to laborers, mechanics, or small farmers. Is there much land, of good quality and well watered, yet unoccupied?

Manitowoc: plenty of land unoccupied. Walworth: small inducements to laborers; but little land unoccupied. Kenosha: very little waste land; lakes and rivers numerous; for dairy farms Kenosha County is called in Chicago, where the product is largely consumed, the "Orange County" of the West, from the superior quality of the butter; 4 or 5 cheese factories within a radius of as many miles denotes the character of the cheese; for small-fruit culture the soil is better than any other in Wisconsin. Milwaukee: land all occupied; good markets; mechanics find plenty of employment. Dane: not much land unoccupied, good farm hands are scarce and greatly needed; so is female help. Rock: no special advantages, only good wages and plenty of work; no unoccupied lands. La Fayette: the land is very productive, well watered, good quality, but generally occupied; market in Chicago. Sauk: plenty of excellent land yet uncultivated, and very healthy. Grant: no better section of the country for laborers, mechanics, or small farmers can be found anywhere. Iowa: wages good; cost of living low. Crawford and Richland: small farms to be procured at reasonable prices and on easy terms, from \$2 to \$5 per acre; a large quantity of good land, well watered, yet unoccupied. Burnett: we

provements. Ramsey: the price depends very materially upon the distance from town; within two miles of the city it is held at fancy prices; five or six miles out good land can be had at from \$7 to \$15 per acre; improved lands, same distance out, \$15 to \$30, one-quarter of it under cultivation and fenced. Stearns: average \$20 per acre. Anokee: good farming lands can be had at from \$4 to \$6 per acre. Dakota: \$20 to \$30 per acre is the average. Nicollet: \$8 to \$15 per acre, one-quarter in cultivation and fenced. Olmsted: \$15 to \$35. Steele: \$5 to \$10 per acre. Mower: \$20 per acre. Scott: \$5 to \$12 per acre, principally log buildings. Le Sueur: \$5 to \$40, one-quarter under cultivation and fenced. Blue Earth: the price depends upon location; near the county town \$50 per acre; further away as low as \$10, buildings ordinary. Rice: \$15 to \$25, prairie land. Winona: \$10 to \$30 per acre, log or small frame buildings.

What is the price per acre of unimproved land, what proportion is cleared, and how much, if any, is fenced?

Washington: \$2 50 to \$20; the lower price is for timber lands in the northern portion of the county, the higher is for prairie land in the southern part. Wabashaw: from \$2 50 to \$15. Hennepin: \$25 to \$75. Goodhue: \$5 to \$15 per acre, according to quality and distance from points for shipping produce; the proportion of prairie to woodland is large enough for farming purposes, and needs no clearing. Ramsey: unimproved land, with no clearing or fencing, six miles out, can be had for \$7 per acre. Stearns: \$10 to \$30. Anokee: \$2 50 to \$6, part prairie and part timber land, not much of it fenced. Dakota: \$2, mostly prairie. Nicollet: \$3 to \$8, all prairie. Olmsted: \$8 to \$15, principally prairie. Steele: \$3 to \$5, prairie, none fenced. Mower: \$5 to \$10, prairie, none fenced. Scott: \$5 to \$10, with from three to twelve acres cleared. Le Sueur: \$4 to \$20, none cleared, none fenced. Blue Earth: \$10 per acre, prairie land is from \$8 to \$25, without fencing. Rice: \$5 to \$10, prairie land, from \$5 to \$20 for timber land. Winona: from \$5 to \$15, no choice lands vacant.

What is the yearly rent of small improved farms? If rented on shares, what share does the owner receive? Does the latter provide stock, implements, or seeds?

Washington: \$3 to \$5 per acre, or one-third of the produce to the owner, he furnishing nothing but the land. Wabashaw: \$3 to \$5; if on shares one-half, the owner providing one-half the stock, implements and seeds. Hennepin: usually on shares; owner receives one-third and furnishes nothing. Goodhue: farms are not often rented, but if rented are generally taken on shares, as above. Ramsey: \$5 per acre, shares same as above. Stearns and Anokee: shares as above. Dakota: if owner furnishes seeds, implements, &c., he receives one-half, otherwise one-third. Nicollet: owner receives one-third and furnishes one-half the seeds. Olmsted: owner receives one-half when he furnishes seeds, implements, stock, &c., otherwise one-third. Steele, Mower, Blue Earth, and Winona: shares the same. Scott: \$2 50 per acre for improved land. Le Sueur: owner receives one-quarter and furnishes nothing, otherwise one-half. Rice: owner provides half the seeds but no stock or implements, and receives one-half the crop after it is harvested.

What are the chief articles of production, and what are the present prices of two or three of them?

Articles of production.	Prices.	Counties.
Wheat .....per bushel..	\$0 50	Steele.
Do.....do.....	\$0 80 to 85	Le Sueur.
Do.....do.....	50 to 55	Goodhue, Nicollet.
Do.....do.....	55	Olmsted.
Do.....do.....	80	Scott.
Do.....do.....	60	Rice.
Do.....do.....	75	Stearns.
Do.....do.....	60 to 65	Winona.
Do.....do.....	60 to 75	Wabashaw.
Do.....do.....	65	Washington, Hennepin, Dakota.
Do.....do.....	65	Mower.
Do.....do.....	70	Anokee.
Do.....do.....	78	Blue Earth.
Corn.....do.....	40	Wabashaw.
Do.....do.....	50	Blue Earth, Scott.
Do.....do.....	40 to 45	Winona.
Do.....do.....	45	Le Sueur.
Do.....do.....	50	Dakota, Olmsted, Mower.
Do.....do.....	40	Scott.
Do.....do.....	70	Stearns.
Do.....do.....	70	Anokee.
Oats.....do.....	30	Stearns, Mower, Le Sueur.
Do.....do.....	32	Rice.
Do.....do.....	30 to 35	Winona.
Do.....do.....	35	Dakota, Scott, Blue Earth.
Do.....do.....	40	Washington.
Barley.....do.....	50	Le Sueur.
Do.....do.....	60	Nicollet.
Do.....do.....	75	Washington.
Do.....do.....	80	Mower.
Do.....do.....	80 to 1 00	Winona.
Do.....do.....	1 00	Wabashaw.
Potatoes.....do.....	70 to 80	Winona.
Do.....do.....	80	Ramsey, Mower.
Do.....do.....	80 to 90	Anokee.
Hay.....per ton..	15 00	Wabashaw.

What is the distance to a market town, a railroad station, or a steamboat landing?

Washington: this county has steamboat landings on the whole of its east and south borders; a railroad on its south and northwest borders; average distance from St. Paul, 18 miles. Wabashaw: this county is on the west bank of the Mississippi, and has three market towns on the river; no railroads. Goodhue: the market town and point of shipment is Red Wing on the Mississippi River, which is the outlet for the productions of this division for from 10 to 25 miles around this point. Ramsey: from 1 to 16 miles. Stearns: one mile. Anokee: our market is almost always at our doors, as our large lumbering interests absorb nearly all that our farmers have to spare. Dakota: we have them all here. Nicollet: From 8 to 16 miles to river and railroad. Olmsted: from 1 mile to 15. Steele: railroad depot in the town. Mower: railroad station in town. Scott: Minnesota River and St. Paul and Sioux City Railroad. Le Sueur: from 1 to 15 miles to market, railroad, steamboat landing, &c. Blue Earth: all our towns are market towns; railroads are near; our produce is shipped east for sale. Rice: a railroad runs through the county north and south. Winona: from 2 to 20 miles.

What is the general quality of land and the kind of timber ?

Washington: fifty thousand acres of prairie in the south, A No. 1; balance covered with burr-oak; quality varying from very poor to very good. Wabashaw: clay and sandy loam, clay subsoil; timber—oak, maple, poplar, basswood and butternut. Hennepin: lands generally good; timber, oak openings. Goodhue: the land is very productive; oak openings and prairie with timber on the streams, maple, oak, basswood, elm, poplar, &c. Ramsey: sandy loam; oak. Stearns: good sandy loam; hardwood timber. Anokee: sandy loam; oak, maple, basswood, ironwood, with a good supply of turmeric. Dakota: generally good; burr-oaks on upland; elm, soft-maple, and cottonwood on bottom land. Nicollet: No. 1 land, and some heavy timber. Olmsted: black alluvial soil; burr and white oak. Steele: land good, timber poor. Mower: black loam; mostly oak. Scott: good; the timber is maple, basswood, elm, hickory, white walnut, &c. Le Sueur: black loam with clay subsoil; oak, ash, elm, linden, &c. Blue Earth: soil very rich; timber land and prairie; oak, ash, maple, linden, &c. Rice: rich sandy loam; maple, oak, elm, basswood, ash, butternut, and hickory. Winona: rich black loam with clay subsoil; oak timber of different varieties.

For what kind of labor is there a demand?

Washington: farm and railroad labor. Wabashaw and Dakota: all kinds. Hennepin, Mower, and Rice: farm labor, male and female. Goodhue: mostly skilled labor; the demand for common laborers is tolerably well supplied except in harvest time. Ramsey: no greater demand for one kind than for another. Stearns: farm, lumbering and railroad laborers. Anokee: carpenters, masons, and plasterers. Nicollet: farm labor in summer, and railroad hands in winter. Olmsted: "muscular" labor. Steele: farmers and carpenters. Scott: agricultural and mechanical. Le Sueur: chopping, farming, and railroad labor. Blue Earth: farm and railroad labor. Winona: farm and mechanical labor of all kinds.

What mills or factories, if any, are in operation or in progress requiring skilled labor?

Wabashaw: saw-mills, grist-mills, planing-mills, sash and blind factories, agricultural implement works, plow factories. Hennepin: woolen-mills, paper-mills, and a cotton factory. Goodhue: twelve flour and grist mills, four saw-mills, two sash and door factories with steam-power, one woolen factory, one foundry. Ramsey: flour-mills, saw-mills, chair factories, sash factories, planing-mills, foundries, &c. Stearns: lumber and flour mills. Dakota: flour-mills only. Olmsted: flour-mills, plow and wagon factories. Steele: flour-mills. Mower: three grist-mills. Le Sueur: saw and grist mills. Blue Earth: one woolen-mill. Rice: flour-mills, foundry, plow and furniture factories, barrel and broom factories. Winona: saw-mills, planing-mills, sash and blind factories, plow, wagon and carriage, and soap and candle factories, foundries, &c.

Are there in your vicinity any railroads or other public works in progress, requiring common labor? If so, how far distant?

Washington: two railroads. Wabashaw: a railroad within fifty miles. Hennepin: a large amount of labor is required in this vicinity. Goodhue: a railroad to be built this summer and autumn. Ramsey: four railroads under construction. Stearns: yes, forty miles distant; also a branch of the Northern Pacific Railroad is building through St. Cloud. Anokee: several railroads are building within the State. Dakota: two railroads now in process of construction. Nicollet: sixteen miles to a railroad. Olmsted: from ten to fifty miles. Steele: twenty-eight

miles. Mower: three miles from town. Scott: fifty-five miles. Le Sueur: yes, running through this town and county. Blue Earth: two railroads in progress in this immediate vicinity. Rice: deaf and dumb asylum in Faribault. Winona: none now in progress; several projected.

Please state any advantages which your district can offer to laborers, mechanics, or small farmers. Is there much land, of good quality and well watered, yet unoccupied?

Washington: good land can be had in the northern part of this county, well wooded and watered, for from \$2 50 to \$10 per acre; location and facilities for disposing of crops not excelled in the West. Wabashaw: constant employment for all at good wages; very little good land unoccupied and unimproved, but small improved farms can be bought at reasonable rates, and on good terms as to payment. Hennepin: advantages incalculable; the greatest water-power in America, and the most promising city in the Northwest, with facilities for gardening or small farming with profit, and demand for mechanical and common labor. Goodhue: about one-sixth of the land in this division is yet unoccupied; much of it is of good quality, and may be purchased on time, affording opportunities for farmers or laborers of small means to commence on their own account; the construction of the buildings necessary on the new farms gives employment to mechanics. Ramsey: employment is always to be obtained at fair wages, and there is large quantity of unoccupied lands. Stearns: this is a new county, and much of the land is yet unoccupied; from \$7 to \$15 per acre. Anokee: there are some tracts of good public land here yet, well timbered and watered, where small farmers could make very desirable homesteads. Dakota: there is a large amount of land now under cultivation which can be obtained on lease at very good advantage. Nicollet: any quantity of land to be obtained under the homestead act. Olmsted: one of the healthiest localities on the globe, and plenty of good rich land, capable of producing enormous crops. Steele: much good land waiting for occupants. Mower: a large amount of land to rent to large or small farmers. Le Sueur: plenty of work for laborers and mechanics; good chance for small farmers; plenty of land of good quality unoccupied, which can be had at reasonable rates. Scott: very little good land unoccupied. Blue Earth: a large extent of rich land unimproved. Settlers, mechanics, farmers, and laborers of every kind in demand, with the exception of factory operatives. Rice: about three-quarters of the land is unoccupied; plenty of wood; plenty of room for labor. Winona: very little land unoccupied, and it is of rather poor quality; good mechanics and farmers in demand. Lands held by non-residents can be purchased at reasonable prices.

What are the prices of farm stock, sound and in good condition?

Districts.	Counties.	Working oxen, per pair.	Working horses, each.	Working mules, each.	Milch cows, each.	Sheep, each.	Hogs.
1	Winona	\$125 to \$150	\$125 to \$200	\$125 to \$200	\$20 to \$45	\$1 50 to \$2 00	\$2 to \$3 each.
1	Rice	100 to 150	150 to 200	.....	40 to 60	1 50 to 2 00	
1	Blue Earth	100	150	150	30	1 50	8 cents per pound.
1	Le Sueur	150	100 to 200	150 to 200	30 to 40	1 50	
1	Scott	100	125 to 150	125 to 150	30	2 00	\$5 to \$10 each.
1	Mower	125	175	200	40	2 00	\$8 each.
1	Steele	100	125	125	30	1 00	
1	Olmsted	100 to 150	100 to 150	150 to 200	25 to 50	2 00 to 3 50	\$5 to \$20 each.
1	Nicollet	125	150 to 200	75	30 to 50	1 50 to 2 00	\$3 to \$15 each.
1	Dakota	140	150 to 200	.....	50	2 50	5 cents per pound.
2	Anokee	200	200	250	40 to 75	2 00	7 cents per pound.
2	Stearns	150	200	300	45	2 50	5 cents per pound.
2	Ramsey	100	125	100	45	3 00	\$10 each.
2	Goodhue	100	100	200	40	3 00	8 cents per pound.
2	Hennepin	160	175	175	60	3 50	\$4 each.
2	Wabashaw	90	125	150	30	3 00	
2	Washington	100 to 150	200	200	35 to 50	2 50	10 cents per pound.
	Average.....	\$126 00	\$160 26	\$171 60	\$40 88	\$2 23	7 1-6 cts. per pound.

IOWA.

Area, 35,228,800 acres. Population in 1870, 1,191,721.

Can land be purchased or rented in your district suitable for small farms on favorable terms?

* Lee, Henry, Jefferson, Louisa, Washington, Van Buren, Davis, Jones, Jackson, Floyd, Dubuque, Buchanan, Allamakee, Howard, Scott, Clayton, Delaware, Mitchell, Winneshiek, Chickasaw, Bremer, Wapello, Benton, Jasper, Johnson, Mahaska, Madison, Dallas, Keokuk, Wayne, Ringgold, Clarke, Shelby, Pottawattamie, Warren, Union, Harrison, Mills, Montgomery, Polk, Page, Taylor, Dickinson, Black Hawk, Boone, Greene, Carroll, Crawford, Story, Sac, Cerro Gordo, Woodbury, Hamilton, and Kossuth: all respond in the affirmative.

What is the price per acre of small improved farms? State what proportion has been under cultivation, how much is fenced, and the kind of buildings?

Lee: from \$20 to \$75 per acre, according to location, improvements, &c.; medium quality, \$50; with good buildings, orchards, &c., from one-half to two-thirds of it fenced. Henry: from \$20 to \$40: all fenced, and under cultivation; moderately good frame buildings. Jefferson: the price averages \$25. Louisa: from \$15 to \$25; nearly all under cultivation; mostly frame buildings. Washington: from \$10 to \$25. Van Buren: from \$15 to \$50; about one-half under cultivation, and about two-thirds under fence; the buildings are generally good, one-third of them of brick, and two-thirds frame. Davis: from \$10 to \$25; one-third under cultivation; small frame or log houses. Jones: from \$20 to \$30; about one-half improved. Jackson: from \$20 to \$25; wooden dwellings, no barns. Scott: from \$25 to \$200; one-half under cultivation. Floyd: from \$10 to \$25; frame buildings. Dubuque: from \$20 to \$40, according to the improvements thereon, and the location. Buchanan: prices depend upon the quantity under cultivation, and kind and quality of buildings, ranging from \$16 to \$30. Allamakee: from \$15 to \$25; one-fourth improved, and fenced; comfortable buildings. How-

* Names of counties from which returns have been received.

ard: from \$15 to \$30; one-third fenced; generally poor fences and cheap buildings. Clayton: from \$20 to \$50. Delaware: from \$15 to \$35; about two-thirds under cultivation; three-fourths fenced; cheap buildings. Mitchell: from \$15 to \$50, according to location and the value of improvements. Winneshiek: the average is about \$25; all under fence; good comfortable buildings. Chickasaw: about \$15; probably two-thirds fenced, and one-half under cultivation. Bremer: from \$20 to \$30; from one-third to two-thirds under cultivation. Wapello: \$20 to \$40; one-half fenced; buildings small. Benton: \$20 to \$40; this being a prairie country, the land is nearly all fenced; from one-half to three-fourths under cultivation, with a fair class of buildings, young orchards, &c. Jasper: from \$25 to \$40; farms about two-thirds fenced, and not cultivated; small frame buildings. Johnson: from \$35 to \$50; one-half or two-thirds fenced, and under cultivation; with comfortable frame buildings. Mahaska: \$20 to \$50; two-thirds under fence, one-half under cultivation; buildings ordinary. Madison: \$20 to \$30. Dallas: from \$20 to \$40; from one-half to two-thirds cultivated; the same quantity fenced; buildings tolerably good. Keokuk: from \$20 to \$25; one-half under cultivation; three-fourths fenced; with frame house and barn. Wayne: \$20; one-third under cultivation; buildings pretty good. Ringgold: \$10 to \$20; one-fourth to three-fourths under cultivation, and fenced; log and frame buildings. Clarke: \$10 to \$15; one-third fenced and under cultivation. Shelby: \$15 to \$20; one-half fenced and under cultivation; frame dwellings, log stables and sheds. Pottawattamie: \$20 to \$40; the county contains over 600,000 acres of land, of which not over 40,000 are under cultivation; buildings generally very good. Warren: \$15; one-half in cultivation and fenced; wood buildings. Union: \$20 to \$25; one-third under cultivation and fenced; buildings not very good. Harrison: \$20 to \$30; one-third under cultivation and fenced; ordinary farm buildings. Mills and Montgomery: \$20 to \$35; small farms are cheaper per acre than large, with similar improvements; generally good buildings for a new country. Polk: from \$25 to \$40; one-third under cultivation; frame buildings. Page and Taylor: \$15 to \$20; frame buildings. Dickinson: \$10 to \$20; one-fourth improved; buildings small, frame or log. Black Hawk: from \$12 to \$40; three-fourths under cultivation and fenced; small and rather inferior buildings. Boone, Greene, Carroll, and Crawford: from \$10 to \$40; small frame and log buildings. Story: \$25; one-half improved; frame buildings. Sac: \$15; one-third under cultivation, and fenced; small frame buildings. Cerro Gordo: \$20 to \$30; all cultivated and fenced; wood or stone houses. Woodbury: \$10 to \$15; improvements rather poor. Hamilton: \$15 to \$25; generally wood buildings. Kossuth: from \$6 to \$20, according to location; some of the improved farms are unfenced, cattle in some neighborhoods being herded; frame buildings.

What is the price per acre of unimproved land, what proportion is cleared, and how much, if any, is fenced?

Lee: there is very little unimproved land in this immediate vicinity; price from \$5 to \$20 per acre. Henry: prairie land, without fence, \$10 to \$20. Jefferson: \$10; about one-half cleared and fenced. Louisa: no land of any considerable amount unimproved; nine-tenths cleared, seven-tenths fenced. Washington: from \$5 to \$10; about one-half cleared and fenced. Van Buren: prairie land, \$10; timber land, \$25; one-half under good cultivation, and about two-thirds under fence. Davis: \$5 to \$15; all prairie land; none fenced. Jones: \$12 to \$20. Jackson: \$10 to \$20; prairie; not fenced. Scott: \$25 to \$50; mostly prairie; a large propor-

tion of the land is fenced. Floyd: \$5 to \$15. Dubuque: from \$5 to \$20, according to location and soil; lands in this county are about equally divided into timber and prairie. Buchanan: about \$10 for unimproved prairie. Allamakee: from \$4 to \$10. Howard: from \$3 to \$15; all prairie. Clayton: \$3 to \$20. Delaware: from \$10 to \$20; mostly prairie; no fence. Mitchell: \$4 to \$25; prairie. Winneshiek: \$12. Chickasaw: \$5 to \$10; prairie; no fence. Bremer: \$5 to \$25; no fence. Wapello, Benton, Jasper, and Johnson: from \$8 to \$15. Mahaska, Dallas, and Madison: \$5 to \$20. Keokuk, Wayne, Taylor, and Page: from \$5 to \$10; prairie. Ringgold: \$3 to \$10 for prairie, \$10 to \$30 for timber land. Clarke: from \$5 to \$10; prairie. Shelby: prairie land, from \$4 to \$10; timber land, from \$15 to \$40. Pottawattamie: from \$5 to \$20. Warren: from \$4 to 10; prairie; none fenced. Union: from \$5 to \$15. Harrison: prairie, \$5 to \$20; timber land, from \$10 to \$40. Montgomery: from \$6 to \$20; almost all prairie. Polk: from \$5 to \$50. Dickinson: from \$1 50 to \$4 50; all prairie; none fenced. Black Hawk: from \$7 to \$15; prairie; no fencing. Boone, Greene, Carroll, and Crawford: from \$4 to \$15; all prairie. Story: \$6; prairie; no fence. Sac: from \$3 to \$7; prairie. Cerro Gordo: \$6 to \$10; all cleared; no fence. Woodbury: \$2 50 to \$10. Hamilton: from \$3 to \$15. Kossuth: from \$2 50 to \$15 for prairie; none fenced.

What is the yearly rent of small improved farms? If rented on shares, what share does the owner receive? Does the latter provide stock, implements, or seeds?

Lee: from \$2 50 to \$5 per acre, or one-third of the crop raised, the renter finding everything; when teams and seeds are furnished by the landowner he gets one-half. Henry: \$4, on shares; owner receives two-fifths. Jefferson: \$3 to \$4; or owner receives one-third of the crop and provides seeds only. Louisa: one-third of the grain; no stock or seeds furnished. Washington: if close to town, much higher than far away. Van Buren: about \$2 50; owner receives one-third, tenant furnishing everything; one-half if landlord furnishes everything except board; if he furnishes board also, he receives two-thirds. Davis: \$2 to \$2 50; on shares, one-third; if owner furnishes he receives one-half. Jones, Pottawattamie: \$5; shares as above. Jackson, Scott, Floyd, and Dubuque: the same. Buchanan: from \$2 to \$3; on shares owner receives one-third, and if he furnishes everything he receives two-thirds. Allamakee: one-half of products, each furnishing half. Howard: owner receives one-third; if he furnishes he receives one-half. Clayton: \$3; on shares as above. Delaware: \$2 to \$3; shares as above. Mitchell and Jasper: \$3 to \$5; shares as above. Winneshiek and Chickasaw: the same. Bremer and Wapello: \$3 to \$4; shares the same. Benton: from \$2 to \$2 50; shares as above. Johnson: \$2 50 to \$5; shares as above. Mahaska and Union: \$3; and shares the same. Madison and Dallas: \$3; shares as above. Keokuk, Ringgold, Clarke, Wayne, Warren, Taylor, Dickinson, Page, and Shelby: \$2; shares as above. Harrison: land draws one-third, labor one-third; stock, implements, &c., the remaining third. Montgomery: \$6 to \$15; all prairie. Polk: owner receives one-third and furnishes nothing. Black Hawk: terms exceedingly favorable to renters. Boone, Greene, Carroll, and Crawford: from \$5 to \$12; on shares the owner receives one-half. Story, Sac, Woodbury, Hamilton, and Kossuth: owner receives one-third, furnishing nothing.

What are the chief articles of production, and what are the present prices of two or three of them?

Articles of production.	Prices.	Counties.
Wheat..... per bushel..	\$0 40 to \$0 50	Madison, Hamilton.
Do..... do.....	45 to. 55	Kossuth, Benton.
Do..... do.....	50	Jones, Chickasaw, Keokuk, Wayne, Shelby, Polk, Boone, Greene, Carroll, Crawford, Story, Sac, Cerro Gordo, Woodbury.
Do..... do.....	52	Floyd, Mitchell.
Do..... do.....	55	Clayton, Howard, Black Hawk.
Do..... do.....	60	Delaware, Mahaska, Warren.
Do..... do.....	50 to 75	Jasper, Johnson.
Do..... do.....	60	Delaware, Warren.
Do..... do.....	65	Jackson, Allamakee.
Do..... do.....	60 to 85	Dubuque, Lee, Dickinson.
Do..... do.....	75	Louisa, Montgomery, Harrison, Clarke.
Do..... do.....	80	Jefferson, Van Buren.
Do..... do.....	80 to 1 00	Taylor, Wapello.
Do..... do.....	1 00	Henry, Ringgold, Scott.
Corn..... do.....	25 to 30	Clarke, Warren.
Do..... do.....	35	Jasper, Shelby, Harrison, Polk, Black Hawk, Delaware.
Do..... do.....	35 to 40	Benton, Hamilton.
Do..... do.....	40	Jones, Jackson, Floyd, Chickasaw, Bremer, Johnson, Madison, Montgomery, Boone, Greene, Carroll, Crawford, Sac, Cerro Gordo, Kossuth.
Do..... do.....	45	Woodbury, Taylor.
Do..... do.....	50	Allamakee, Winneshiek, Page, Davis, Mitchell.
Do..... do.....	60	Van Buren, Clayton, Keokuk, Ringgold, Union, Scott.
Do..... do.....	65	Lee, Henry, Wapello.
Do..... do.....	75	Jefferson, Wayne, Dickinson.
Oats..... do.....	25	Jones, Harrison, Delaware.
Do..... do.....	30	Benton, Van Buren, Howard, Winneshiek, Jasper, Shelby, Kossuth.
Do..... do.....	35	Henry, Louisa, Scott, Floyd, Davis, Taylor, Ringgold, Dickinson, Cerro Gordo, Woodbury, Hamilton.
Do..... do.....	40	Lee, Jefferson, Dubuque, Clayton, Chickasaw, Keokuk, Wayne.
Potatoes..... do.....	25	Boone, Greene, Carroll, Crawford.
Do..... do.....	50	Kossuth, Scott, Bremer, Jasper, Henry, Dubuque, Johnson, Ringgold, Dickinson, Harrison.
Do..... do.....	60	Louisa, Allamakee, Warren.
Do..... do.....	65 to 75	Shelby, Woodbury.
Barley..... do.....	40 to 45	Allamakee, Scott.
Do..... do.....	60	Winneshiek, Black Hawk.
Do..... do.....	1 00	Dubuque, Montgomery.
Rye..... do.....	55	Van Buren.
Do..... do.....	75	Ringgold.
Do..... do.....	85	Henry.

What is the distance to a market town, a railroad station, or a steamboat landing?

Lee: we are on the Mississippi River and have markets all around us, and transportation both by river and rail. Henry: a railroad passes through the county town. Jefferson: markets every 6 miles. Louisa: steamboat landing from 16 to 22 miles; railroad station $1\frac{1}{2}$ to 12 miles. Washington: railroad running through this division. Van Buren:

railroad stations from 3 to 6 miles apart; no farm more than 15 miles from a station. Davis: four railroads run through county seat, and we will have another soon. Jones: one railroad in the county, and more in course of construction. Jackson: our county town is a market; 20 miles to railroad and steamboat. Scott: river and railroad through Davenport, the county seat. Floyd: two railroads. Dubuque: from 1 to 15 miles. Buchanan: railroad through the center of the county. Allamakee: county town at steamboat landing. Story, Jasper, Madison, and Howard: railroad through each county. Clayton: 15 miles is the most distant point from either. Delaware: two railroads running through the county; 40 miles from Mississippi River. Mitchell: railroad station within 15 miles of any part of the county. Winneshiek: railroad through the county, and six stations within the county. Chickasaw: there are four railroad stations within the county, and no part is over 12 miles from market. Bremer: from 3 to 15 miles to railroad station. Wapello: railroad stations within 10 miles of remotest part of county. Benton: from 3 to 15 miles from a railroad station. Johnson: 10 miles is the farthest from a station. Mahaska: the county seat is a market, and there are three railroad stations within the county. Dallas: three railroad stations within 7 miles. Keokuk: 30 miles. Wayne: 20 miles. Ringgold: 9 miles from north line of county, and 22 miles from county seat to Afton station. Clarke: a railroad through Osceola, the county seat. Shelby: from 4 to 10 miles. Pottawattamie: four railroads traverse the county, and the Missouri River forms its western boundary. Warren: 18 miles to railroad station. Union: a railroad passes through the county seat. Harrison: 5 miles to railroad station. Montgomery: 3 miles from railroad station, 6 miles from steamboat landing. Polk: from 1 to 15 miles; two railroads. Page: 15 miles to railroad station. Taylor: 25 miles. Dickinson: 60 miles to railroad station, and 80 miles to steamboat landing. Black Hawk: good markets on a line of railway from 1 mile to 20. Boone, Greene, Carroll, and Crawford: to railroad station from 1 to 12 miles. Sac: 14 miles. Cerro Gordo: 20 miles. Woodbury: both railroad and steamboat communication. Hamilton: 6 miles from railroad station. Kossuth: 40 miles to railroad at present, but one will soon be completed through this division to Algona.

What is the general quality of land, and the kind of timber?

Lee: bottom and upland prairie of the first quality; plenty of timber for all ordinary purposes, consisting of oak, walnut, elm, cottonwood, hickory, sycamore, hard and soft maple, &c. Henry: rich black loam; the timber is oak, walnut, hickory, elm, &c. Jefferson: good land; the timber is oak, hickory, maple. Louisa: good; oak, hickory, walnut, elm. Washington: good. Van Buren: the land is good; timber—oak, hickory, ash, hackberry, hard and soft maple, elm, walnut, cherry, cottonwood, &c. Davis: black sandy soil; oak, walnut, and hickory. Jones: deep rich soil; timber—generally oak. Jackson: superior land; timber—maple, oak, hickory, and walnut. Scott: land generally good; timber scarce—oak, hickory, and walnut. Floyd: good land, clay subsoil; timber—jack-oak and poplar. Dubuque: rolling prairie, black loam surface soil, subsoil clay; the timber is mostly oak, in some localities hard and soft maple, black and white walnut, hickory and poplar. Buchanan: good prairie lands, with timber along the streams, principally oak, some hickory, elm, &c. Allamakee: prairie; oak, maple, and birch. Howard: the land is excellent; limestone rock, and small groves of oak timber, except on the river borders; there all kinds. Clayton: rich black loam, with clay subsoil; oak, maple, elm, bass.

wood, and some hickory and ash; soft maple on low bottoms. Delaware: sandy loam and some clay subsoil; timber—principally oak, some maple and basswood. Mitchell: deep rich black loam, no better anywhere; white and red oak, white and black walnut, maple, elm, hickory, and basswood. Winneshiek: black sandy loam; timber—principally oak. Chickasaw: black loam; oak, with some maple, elm, &c. Bremer: very rich black loam; the timber is oak, maple, basswood, and white walnut. Wapello: quality of land No. 1; timber—oak, elm, black walnut, hackberry, and cottonwood. Benton: the soil is a choice rich loam; timber—oak, cottonwood, elm, maple, hickory, basswood, &c. Jasper: excellent land; timber is hickory, oak, lime, black and white walnut. Johnson: deep, rich, vegetable mold; hickory, white, burr, red, and black oak, black and white walnut, maple, elm, birch, and cottonwood. Mahaska: good rich prairie; white oak and walnut. Madison: prairie; oak. Dallas: good black soil about two feet deep; timber light. Keokuk: deep black soil; oak, hickory, and black walnut. Wayne: good; timber fair. Ringgold: good prairie soil, 18 to 36 inches; timber—oak, ash, hickory, maple, cottonwood, elm, &c. Clarke: good land; walnut, elm, cottonwood, white and burr oak. Shelby: prairie land A No. 1; black walnut, oak, hickory, and elm. Pottawattamie: the bluffs are solid beds of marl, the prairies the richest mulatto soil, from 3 to 20 feet deep; red oak, post oak, black walnut, hickory, and cottonwood. Warren: rich black loam, with oak, hickory, and walnut timber along the streams. Union: generally rolling prairie. Harrison: the best of soil; oak, black walnut, elm, cottonwood, hickory. Montgomery: the most productive soil in the West; hard wood on high land, soft wood on low. Polk: prairie; oak and cottonwood, some black walnut and hickory. Page: good rich soil; timber—oak, elm, hickory, maple, and basswood. Taylor: the land is as good as any in the West or elsewhere. Dickinson: black loam with clay subsoil; timber—oak, ash, elm, hackberry and black walnut. Black Hawk: rich loam, some limestone clay; maple, oak, hickory. Boone, Greene, Carroll, and Crawford: rich alluvial, gently rolling prairie; the timber is oak, walnut, ash, hickory, linden, and elm. Story: land good; oak, elm, walnut, and cottonwood. Sac: the soil is a black loam and very productive; oak, walnut, basswood, and elm. Cerro Gordo: black loam; oak, black walnut, basswood. Woodbury: good; cottonwood, oak, elm, ash. Hamilton: black loam; oak, hickory, basswood, elm, black walnut, maple, &c. Kossuth: deep and rich prairie land; the timber is oak, ash, linden, cottonwood, maple, black walnut, butternut, hickory, and elm.

For what kind of labor is there a demand?

Lee: farm and house labor generally in demand. Henry, Jefferson, Jones, Floyd, Buchanan, Howard, Winneshiek, Madison, Wayne, Polk, Page, Dickinson, Black Hawk, Story, and Sac: farm labor principally. Louisa: all kinds of common labor, not mechanical. Washington: hard labor. Van Buren: farm hands and mechanics of all kinds. Davis: all kinds. Allamakee, Mitchell, Jasper, Dallas, Warren, and Hamilton: all kinds. Ringgold: nearly all kinds. Jackson: mechanical and agricultural. Scott: very little demand at present. Dubuque: agricultural and mechanical. Clayton: common laborers and builders. Delaware, Keokuk, Taylor, and Cerro Gordo: farm and mechanical. Chickasaw: mostly farm labor, but a great variety of work is done here. Bremer: common labor, farm labor, female labor, blacksmiths, &c. Wapello: coal miners, railroad laborers, and female servants. Benton: there is *no special demand* for any kind of labor at present, although *most*

laborers find remunerative employment. Johnson: just at this time the demand for labor is very limited. Mahaska: coal miners and farmers. Clarke: common labor mostly. Shelby: farm and mechanical. Pottawattamie: agricultural laborers and house servants. Union: carpenters more than any other. Harrison: farm labor, also carpenters, wagon-makers, cabinet-makers, cheese-makers, and especially all kinds of female help. Montgomery: common labor. Boone, Greene, Carroll, and Crawford: farm laborers and coal miners. Woodbury: just now labor is not in demand. Kossuth: farm, dairy, mechanical, and common.

What mills or factories, if any, are in operation or in progress requiring skilled labor?

Lee: no demand at this time for any skilled labor. Henry: two flour-mills, two woolen factories, two wagon factories, one machine-shop, &c. Jefferson: woolen factories. Louisa: woolen factory, saw and grist mills. Washington: flour-mills. Van Buren: four woolen factories, four steam flour-mills, four water flour-mills, one paper-mill, one large agricultural implement factory, and four pottery establishments. Davis: two grist-mills and one planing-mill. Jones: but little manufacturing of any kind done here, although we have plenty of good water-power and building materials. Jackson: woolen and carriage manufactories. Scott: one woolen-mill, machine-shops, cabinet-shops, boot and shoe factories. Dubuque: woolen factories, saw and flour mills, paper-mills, and manufactories of iron, wood, and leather, in their various branches. Buchanan: one very large flour-mill at Independence. Allamakee: flour-mills, saw-mills, and woolen factories. Delaware: machine and carriage factories, foundry, woolen factory. Polk: ten saw-mills, five flour-mills, two woolen-mills. Mitchell: woolen-mills, grist and saw-mills, foundries for the different varieties of farm machinery. Winnebago: thirteen flour-mills, one paper-mill, two woolen factories. Chickasaw: flour and saw mills only. Bremer: two flour-mills, one woolen factory, one foundry, two cabinet-shops. Jasper: six woolen factories, and some twenty grist-mills. Johnson: two woolen factories and one paper-mill, one oil factory, flax factory, carriage factory, and seven flour-mills. Mahaska: several woolen factories, two foundries, and some twelve or fifteen large flour-mills. Madison: woolen-mills. Dallas: flour-mills and woolen factories. Keokuk: two woolen factories and ten grist-mills. Wayne: one good grist-mill, one woolen-mill; others in process of erection. Ringgold: steam saw and grist mills. Clarke: woolen-mills, steam saw and grist mills, and planing-mill. Shelby: a few saw and grist mills. Pottawattamie: woolen-mills, foundries, steam, saw, and grist mills, broom factories. Warren: saw-mills, flour-mills, woolen factories. Harrison: flour-mills, woolen factories, and saw-mills. Montgomery: twelve flour-mills and ten steam saw-mills, one factory; a good opening for factories of all kinds. Dickinson: grist and saw mills. Black Hawk: flour-mills, woolen factory, cabinet-shop. Boone, Greene, Carroll, and Crawford: woolen-mill, machine-shops, &c. Story: flour-mills and woolen-mill. Sac: saw and grist mills. Cerro Gordo: nine saw-mills, four flour-mills. Woodbury: saw and grist mills. Taylor: grist and saw mills, steam and water power; woolen factory, &c.

Are there in your vicinity any railroads or other public works in progress requiring common labor? If so, how far distant?

Jefferson: one railroad in progress running through the county. Louisa: one about completed, another in progress. Van Buren: the Des Moines Valley Railroad Company are changing the track of their road, and working about 200 hands. Davis: two railroads through the county.

Jones: some railroads about being built; no demand for common labor yet. Jackson: a railroad half a mile distant. Scott: Rock Island arsenal, Rock Island bridge, Mississippi River improvements, and Davenport and St. Paul Railroad a few miles distant. Howard: 25 miles away. Clayton: there are railroads in process of construction, having their initial point in the county town of this county. Mitchell: a railroad through the county is already completed, and we hope to have more soon. Wapello: two railroads. Benton: a railroad being built through Cedar Valley. Johnson: a railroad to run through the county has been in progress, but work is now suspended. Mahaska: one railroad is being built through the center of the county, running north and south, called the Iowa Central. Madison and Dubuque: a railroad to be built. Dallas and Keokuk: a railroad runs directly through the center of each county. Ringgold: a railroad 22 miles distant. Pottawattomie: 2 miles from Council Bluffs a railroad and Deaf and Dumb Asylum. Warren: a railroad in progress through the county town. Montgomery: a railroad in the immediate vicinity. Polk: two railroads completed, none now in progress. Taylor and Delaware: a railroad in progress directly through each county. Dickinson: 15 miles distant. Black Hawk: two running through our city. Waterloo, Boone, Greene, Carroll, and Crawford: the Northwestern Railroad runs through this division, employing many hands. Story: 20 miles. Sac: about 25 miles off. Cerro Gordo: two railroads, both crossing the district. Woodbury: yes; 60 miles. Kossuth: one railroad running through this division.

Please state any advantages which your district can offer to laborers, mechanics, or small farmers. Is there much land, of good quality and well watered, yet unoccupied?

Lee: mechanics do well here, also small farmers; land of good quality is all occupied. Henry: to the latter question, yes. Jefferson: there is a large amount of land yet unoccupied which can be purchased at reasonable rates; there is also a demand for mechanical labor, but capital is needed. Louisa: there is a demand for common laborers and small farmers; no land of any considerable amount unoccupied. Washington: as good a chance to work as a man wants; any amount of unoccupied land to be obtained if desired. Van Buren: one-third of the best land is yet unoccupied, and it is cheap; there is good hardwood in abundance; coal plenty, and water-power unlimited; mechanics are wanted. Davis: plenty of land unoccupied; a fine opening for men of small or large means. Jones: raising hogs, cattle, and corn is the most profitable business; great profits will also arise from the advance in the price of land, in consequence of the construction of the proposed railroads. Jackson: good schools and churches; plenty of timber and stone for building; lime, water-power, healthful climate, and a people who pay their debts. Dubuque: in this county, we have a city with a population of about 20,000 inhabitants, furnishing a home market for vegetables, butter, poultry, &c.; about one-half of the land in this county is unoccupied, well watered, and of good quality. Buchanan: some very fine prairie lands yet unoccupied, and good opportunities to obtain farms at reasonable prices. Howard: any amount of unoccupied land in the hands of speculators; we want anybody who will work; the water is excellent. Clayton: we want both labor and capital to utilize our fine water-power, and develop the rich manufacturing advantages of our new country, but skilled labor without capital is useless. Delaware: common laborers get \$1 25 a day; mechanics, from \$2 50 to \$4 per day; plenty of land to be obtained on reasonable terms. Mitchell: as good inducements for all

kinds of laborers as there are in the country. Winneshiek: some good land unoccupied, but all held by speculators and non-residents; prices varying from \$5 to \$15 per acre; fine stock-raising country. Chickasaw: there is a very good opening for the classes of labor that are common to a farming country; farmers of small means can do well. Bremer: the same as above. Wapello: good land, well timbered, plenty of stone, and unlimited quantities of bituminous coal. Benton: plenty of land unoccupied. Jasper: good wages and cheap living for laborers; fertile and cheap lands for farmers. Johnson: a soil unsurpassed in richness; healthful climate, and an enterprising and industrious population, with easy access to a market. Mahaska: laborers, mechanics, and small farmers can always find employment at good wages; plenty of land of the best quality. Dallas and Keokuk: the best lands in the United States inviting tillage. Wayne: land of excellent quality, and cheap. Ringgold: plenty to accommodate thousands of applicants for small farms. Clarke: the same as above. Shelby and Pottawattomie: unsurpassed inducements to settlers of limited means, and all others. Warren, Union, Harrison, and Montgomery: the same. Page: the garden-spot of the world. Taylor: settlers with small means get the benefit of the range for cattle and all the hay they need, without fencing, with the richest of land. Dickinson: the best of land at a low price; there is also vacant Government land that may be taken as homesteads. Black Hawk: profitable employment for all who are willing to work. The healthfulness of the country is remarkable. Boone, Greene, Carroll, and Crawford: several thousands of small farmers are wanted, and brickmakers are especially needed. Story: mechanics can find plenty of work at fair wages; plenty of improved prairie land of good quality, at fair prices. Sac: many hundred thousands of acres of farming land yet unoccupied; this county is fast filling up, and there is a demand for mechanics of every trade. Cerro Gordo: as above; average price, \$4 per acre. Hamilton: plenty of desirable land, and abundance of coal for fuel; all kinds of mechanics needed here. Kosuth: a large area of cheap lands and a healthful climate; a fair demand for all kinds of labor, and superior advantages for small farmers.

What are the prices of ordinary farm stock, sound and in good condition?

Districts.	Counties.	Working oxen, per pair.	Working horses, each.	Working mules, each.	Milch cows, each.	Sheep, each.	Hogs.
1	Lee	\$100 to 175	\$100 to 175	\$100 to 200	\$40 to 70	\$1½ to 2	\$2 to \$10 each.
1	Henry	125	125	150	40	1½	10 each.
1	Jefferson	125 to 150	100 to 125	125	50 to 60	3	8 each.
1	Louisa	None.	120	125	50	1½	7c. p. lb. on foot.
1	Washington		125 to 150	150 to 200			
1	Van Buren	150	125	150	35	2	6c. to 9c. per lb. on foot.
1	Davis	100 to 150	75 to 125	90 to 150	30 to 40	1 to 2	6c. per lb.
2	Jones	140	150	165	35	2	7c. gross.
2	Jackson	75	90		50	2	8c. per lb.
2	Scott		100	150	40	1	8c. to 10c. per lb.
3	Delaware	100	125	150	30	1 to 1½	5c. to 8c. per lb.
3	Floyd	100	100	100	35	1	\$5 each.
3	Allamakee	75 to 80	150	250	35 to 40	3 to 3½	10c. to 12c. p. lb.
3	Howard	100	125 to 150	150 to 175	40	1½ to 1½	7c. live weight.
3	Clayton	115	100 to 150	100 to 150	35 to 40	1 to 2	6c. live weight.
3	Mitchell	100 to 125	100 to 200	100 to 200	20 to 40	1 to 3	High.
3	Buchanan	150 to 200	150	200	30 to 50	2½ to 3	6c. to 7c. per lb.
3	Winneshiek	140	150	165	35	1½	\$7 per cwt.
3	Chickasaw	125	125	130	30	1	8c. per lb.
3	Bremer	150	130	125	40	1	\$7 per cwt.
3	Dubuque	80 to 120	75 to 150	100 to 200	30 to 40	2 to 5	\$7 to \$15 each.
4	Keokuk	150	125	150	40	2	8c. per lb.

Districts.	Counties.	Working oxen, per pair.	Working horses, each.	Working mules, each.	Milch cows, each.	Sheep, each.	Hogs.
4	Jasper	\$125 to 150	\$125 to 175	\$125 to 200	\$40 to 50	\$2 to 4	10c. per lb.
4	Mahaska	50	100	100	35	1	\$7 each.
4	Benton	100 to 150	100 to 175	125 to 200	30 to 50	1½ to 2½	6c. to 8c. per lb.
4	Johnson	100	100	100	30	75 cts.	\$2 50 each.
4	Wapello	125	75 to 100	125 to 150	35 to 50	\$1	7c. per lb.
4	Dallas	140	150	175	40		Unknown.
5	Ringgold	100 to 125	100 to 150	100 to 150	30 to 50	1½ to 2	7½c. per lb.
5	Clarke	100	100	100	40	1½	8c. to 9c. per lb.
5	Madison	75 to 125	100 to 150	100 to 150	30 to 40	2 to 2½	9c. per lb.
5	Shelby	150	130 to 200	130 to 200	40 to 60	2	\$5 to \$25 each.
5	Pottawattomie	150	150	150	45	2	20 each.
5	Warren	100	125	150	35	2	6c. per lb.
5	Wayne	100	125	125	30 to 50	75c.	5c. to 6c. per lb.
5	Union	150	75 to 150	.....	40 to 50	\$1 to \$2	.....
5	Harrison	150	100	125	40	2½	\$5 each.
5	Mills and Montgomery	200	150	175	50	1½	1 to 50 each.
5	Polk	100	75 to 150	150	15 to 60	1 to 5	15 each.
5	Page	150	125 to 175	150 to 200	40 to 60	50c. to 1	6 to 12 each.
5	Taylor	100	125	150	25 to 45	1 to 1½	7c. per lb.
6	Black Hawk	110	100	100	24	2	\$2 p. cwt., gross.
6	Dickinson	140	150	150	40	1½	10 each.
6	Story	100	125	150	40	1	8 per cwt.
6	Sac	100	125	125	35	2½	10 each.
6	Cerro Gordo	125	140	130	40	2	8 50 per cwt.
6	Woodbury	100 to 160	125 to 200	125 to 200	25 to 75	4 to 5	20 to 40 each.
6	Hamilton	75 to 80	100 to 125	100 to 150	25 to 30	1 to 2	8 to 20 each.
6	Kossuth	80	75 to 100	100	30	1½	5c. per lb.
	Average	\$122	\$127 50	\$146	\$39 50	\$1 75	7 1-10c. per lb

MISSOURI.

Area, 41,824,000 acres; population in 1870, 1,721,254.

Can land be purchased or rented in your district suitable for small farms on favorable terms?

* Franklin, Cape Girardeau, Wayne, Butler, Ripley, Carter, Oregon, Shauuon, Reynolds, Iron, Mississippi, Sullivan, Bates, Cass, Johnson, Cole, Miller, Lewis, Randolph, and Macon: it can.

What is the price per acre of small improved farms? State what proportion has been under cultivation, how much is fenced, and the kind of buildings.

Franklin: from \$20 to \$25 per acre; one-fourth under cultivation; buildings ordinary. Cape Girardeau, Perry, Bollinger, and Madison: average price, \$10; about one-third under cultivation; buildings, log and frame. Wayne, Butler, Ripley, Carter, Oregon, Shannon, Reynolds, and Iron: from \$2 to \$100, according to location; about one-fourth under cultivation and fence; buildings principally log. Mississippi: \$8 to \$10; one-quarter under cultivation; ordinary buildings. Livingston: from \$10 to \$35, according to location and improvements; about one-fourth under cultivation; mostly frame buildings. Sullivan: from \$4 to \$8; one-fourth under cultivation; one-third fenced; buildings, hewed log and frame. Bates and Cass: from \$10 to \$25; such farms generally have from 40 to 100 acres in cultivation and fenced; the buildings are ordinary; excellent farming lands, with abundance of coal, timber, and water. Johnson, Cole, and Miller: \$15 to \$25; one-third in cultivation, and fenced; small frame buildings. Lewis: \$20 to \$30; one-half to two-thirds in cultivation; buildings, log or frame. Randolph: \$15 to \$20. Macon: \$12 to \$25; one-half under cultivation; two-thirds fenced; buildings poor.

* Names of counties from which returns have been received.

What is the price per acre of unimproved land? What proportion is cleared, and how much, if any, is fenced?

Franklin, Gasconade, and Osage: from \$10 to \$15 per acre; one-sixth cleared; none fenced. Cape Girardeau, Perry, Bollinger, and Madison: \$5 to \$8; none cleared, but there is such a good market for wood, that it will generally pay for clearing and fencing. Wayne, Butler, Ripley, Carter, Oregon, Shannon, Reynolds, and Iron: from \$1 to \$10; one-fifth cleared and under fence. Mississippi: \$2 to \$10; all timber. Livingston: from \$5 to \$20; prairie land generally, with timber adjoining. Sullivan: average, \$5. Bates and Cass: from \$5 to \$20; prairie; not fenced. Johnson: \$10 to \$15; prairie. Cole and Miller: \$5 to \$15; very little cleared or fenced. Lewis: \$6 to \$20; mostly prairie, with timber enough for fencing; all timber land from \$15 to \$25; and near the river a good market for wood at \$4 per cord. Randolph: from \$10 to \$15. Macon: \$5 to \$15; none fenced.

What is the yearly rent of small improved farms? If rented on shares, what share does the owner receive? Does the latter provide stock, implements, or seeds?

Franklin, Gasconade, and Page: from \$100 to \$150; on shares, owner receives one-third; and if he provides stock, implements, &c., he receives one-half. Cape Girardeau, Perry, Bollinger, and Madison: a farm of 75 or 100 acres, with 20 or 30 acres under cultivation, \$100 per annum; shares same as above. Wayne, Butler, Ripley, Carter, Oregon, Shannon, Reynolds, and Iron: from \$25 to \$100; shares as above. Mississippi: \$3 to \$4 per acre; 10 to 12 bushels of corn to the acre. Livingston: \$2 per acre, cash; shares same as above. Sullivan: from \$75 to \$100 cash rent; shares as above. Bates and Cass: from \$2 50 to \$5 cash rent per acre; shares as above. Johnson: from \$2 to \$3 per acre, or one-third of the produce. Cole and Miller: \$3 to \$5; shares as above. Lewis: \$2 to \$3; on shares, owner receives one-third in shock and crib and pays for repairs. Randolph: owner receives two-thirds and furnishes nothing. Macon: \$1, or one third of the crop.

What are the chief articles of production, and what are the present prices of two or three of them?

Articles of production.	Prices.	Counties.
Wheat.....per bushel..	\$0 80	Cole, Miller.
Do.....do.....	\$0 80 to 1 25	Wayne, Butler, Ripley, Carter, Oregon, Shannon, Reynolds, Iron.
Do.....do.....	75	Johnson, Bates, Cass.
Do.....do.....	85	Franklin, Gasconade, Osage.
Do.....do.....	90	Livingston.
Do.....do.....	1 00	Mississippi, Sullivan, Lewis, Macon.
Do.....do.....	1 25	Cape Girardeau, Perry, Bollinger, Madison.
Corn.....do.....	40	Bates, Cass.
Do.....do.....	40 to 1 00	Wayne, Butler, Ripley, Carter, Oregon, Shannon, Reynolds, Iron.
Do.....do.....	50	Franklin, Gasconade, Osage, Cole, Miller.
Do.....do.....	50 to 80	Lewis, Macon.
Do.....do.....	70 to 75	Mississippi, Livingston.
Do.....do.....	95	Cape Girardeau, Perry, Bollinger, Madison.
Oats.....do.....	35 to 40	Sullivan, Livingston.
Do.....do.....	35 to 75	Wayne, Butler, Ripley, Carter, Oregon, Shannon, Reynolds, Iron.
Do.....do.....	50	Cole, Miller.
Potatoes.....do.....	25	Bates, Cass.
Do.....do.....	40	Johnson.

What is the distance to a market town, a railroad station, or a steamboat landing?

Franklin, Gasconade, and Osage: Union, the county seat, located about the center of the county, is 10 miles distant from Washington, a town situated on the Pacific Railroad and Missouri River, 55 miles from St. Louis; macadamized road from Union to Washington. Cape Girardeau, Perry, Bollinger, Madison: Cape Girardeau and Perry counties border on the Mississippi River; two railroads run through Cape Girardeau, Bollinger, and Madison counties; a good market and easy of access. Wayne, Butler, Ripley, Carter, Oregon, Shannon, Reynolds, Iron: from 1 mile to 100 miles. Mississippi: the east side of this county borders upon the Mississippi River; a railroad runs through the county. Livingston: Hannibal and St. Joseph Railroad runs through the county; two railroads now building, and two more in contemplation. Sullivan: 35 miles to railroad. Bates and Cass: from 1 to 60 miles. Johnson: Warrensburg, the county seat, is on the Pacific Railroad; steamboat landing 30 miles. Cole and Miller: Jefferson City, a market town, railroad station, and steamboat landing, is on the north line of the county. Lewis: two steamboat landings in this county. Randolph: immediately on North Missouri Railroad. Macon: from 1 to 10 miles.

What is the general quality of land, and the kind of timber?

Franklin, Gasconade, and Osage: ridge land; every variety of oak and hickory, and almost all kinds of timber. Cape Girardeau, Perry, Bollinger, and Madison: principally oak, walnut, ash, hickory, and gum. Wayne, Butler, Ripley, Carter, Oregon, Shannon, Reynolds, and Iron: from poor to good; timber—black walnut, hickory, poplar, maple, white oak, black oak, pine, cypress, and ash. Mississippi: bottom lands; timber—walnut, cypress, oak, and gum. Livingston: black loam of excellent quality; timber—oak of different kinds, black walnut, hickory, maple, ash, &c. Sullivan: oak, hickory, black walnut, and linden. Bates and Cass: a rich sandy loam, with abundance of limestone jutting out of the high prairie; the timber is confined generally to the borders of streams, and consists of oak, walnut, elm, ash, hickory, &c. Johnson: the land is all good; the timber consists of oak, walnut, cherry, elm, ash, &c. Cole and Miller: land good; timber—oak, ash, walnut, hickory, &c. Lewis: mostly prairie, with plenty of timber to supply it; oak, hickory, elm, walnut, cottonwood, &c. Randolph: rich sandy loam; oak, hickory, walnut, ash, and maple. Macon: land fair; timber—oak, hickory, and black walnut.

For what kind of labor is there a demand?

Franklin, Gasconade, and Osage: good farm hands. Cape Girardeau, Perry, Bollinger, and Madison: principally farm and common laborers; there is great need of capital. Wayne, Butler, Ripley, Carter, Oregon, Shannon, Reynolds, Iron, Sullivan, and Johnson: all kinds. Mississippi, Cole, Miller, Lewis, and Macon: agricultural labor. Livingston, Bates, and Cass: mechanics and farm laborers. Randolph: farm and railroad hands, and mechanics of all kinds.

What mills or factories, if any, are in operation or in progress requiring skilled labor?

Franklin: iron-works and flour-mills. Cape Girardeau, Perry, Bollinger, and Madison: flour-mills, saw-mills, cloth manufactories, cooper-shops, lead-furnaces, blacksmiths' and wagon-makers shops, &c. Wayne, Butler, Ripley, Carter, Oregon, Shannon, Reynolds, and Iron. Iron manufactories, employing from 300 to 700 men. Livingston: flour and saw mills. Sullivan: carding machines and flour-mills. Bates and

Cass: flour and saw mills are built as the developments of the country demand them. Johnson: three merchant-mills, one foundery, soap factory, planing-mill. Cole and Miller: ten flour-mills, six saw-mills. Lewis: one large tobacco factory. Randolph: flour-mills. St. Louis: the city of St. Louis has numerous and extensive manufacturing establishments, requiring skilled labor. In the year 1870, according to the census returns, upward of 40,000 skilled hands were employed, the value of whose product exceeded *one hundred and thirty-one millions of dollars.*

Are there in your vicinity any railroads or other public works in progress requiring common labor. If so, how far distant?

Franklin, Gasconade, Osage, and Mississippi: none at present. Cape Girardeau, Perry, Bollinger, Madison: yes; the Cape Girardeau and State Line Railroad, running from the city of Cape Girardeau to the Indian Ford Iron Mines near the Arkansas line, is now in course of construction, and requires a great many laborers. Wayne, Butler, Ripley, Carter, Oregon, Shannon, Reynolds, and Iron: several projected, but none in operation or in progress. Livingston: two railroads now building, and two more in contemplation. Sullivan: 35 miles distant. Bates and Cass: several railroads in process of construction, and bridges building across the Missouri River. Johnson: about 25 miles off. Cole and Miller: two railroads, one along the north line of the county, and one through the center. Lewis: yes. Randolph: there are some three railroads in process of construction. Macon: through the county of Macon, Adair, and Schuyler.

Please state any advantages which your district can offer to laborers, mechanics, or small farmers. Is there much land, of good quality and well watered, yet unoccupied?

Franklin, Gasconade, and Osage: an abundance of good land unoccupied. Mississippi, Livingston, and Macon: the same. Cape Girardeau, Perry, Bollinger, and Madison: there has not been much immigration since the war, on account of lack of enterprise on the part of the old citizens, but a change is now taking place. Farmers are wanted because a large portion of the land is lying idle. There is some public land not yet taken up; and the system of small farms well cultivated has not been adopted. This division cannot be excelled for fruits of all kinds; the land is all well watered, and the most of it of a good quality for farming, but now heavily timbered; wood is always in demand; and farm-produce brings a good price. Wayne, Butler, Ripley, Carter, Oregon, Shannon, Reynolds, and Iron: encouragement for railroad laborers is good at present; wages, \$2 per day; there is plenty of land of good quality and well watered, suitable for small farms. Sullivan: about two-thirds of the land is unimproved; it is of good quality, well timbered, and well watered. Bates and Cass: the country is filling up rapidly; consequently there is a fair, and sometimes an urgent demand for farm and skilled labor. The low price at which good land can be had, capable of producing all the cereals and fruits in perfection, offers superior inducements to small farmers to settle themselves in this region. Johnson: this county possesses rare advantages over many other portions of the country; we have the best of land, well watered; plenty of coal and timber. Cole and Miller: good climate, good soil, good schools, good society, and plenty of land of good quality unoccupied. Lewis: a good demand for labor in summer time, and a fair demand in winter; a great deal of good land, well watered, yet unimproved.

What are the prices of ordinary farm stock, sound and in good condition?

Districts.	Counties.	Working oxen, per pair.	Working horses, each.	Working mules, each.	Milch cows, each.	Sheep, each.	Hogs, each per lb.
2	Iron, Reynolds, Shannon, Oregon, Carter, Ripley, Butler, Wayne.	\$40 to 100	\$75 to 150	\$80 to 200	\$12 to 40	\$1 to 3½	\$1½ to 15
	Cape Girardeau	75	125	150	30	2½ to 3	*6c.
2	Franklin	100	90	125 to 200	35	3	*7 to 8c.
2	Mississippi	75 to 100	75 to 150	100 to 150	20 to 30	1½	\$1 to \$5
3	Macon	75	100	110	30	1½	*2
3	Randolph	130	120	100	30	1½	\$10
3	Lewis	150	100	150	40	1½	*6 to 8c.
5	Cole and Miller	100	85	100	30	1½	*3
5	Johnson	100 to 150	125 to 150	125 to 150	50 to 75	2 to 5	*10 to 12c.
5	Bates and Cass	100 to 150	100 to 175	150 to 250	40 to 50	1½	*\$2 to 30
6	Sullivan	125	125 to 150	125 to 150	25 to 40	1 to 2	*5 to 6c.
6	Livingston	100 to 150	75 to 150	100 to 175			*6c.
	Average	98 86	\$118 25	\$133 33	\$35 18	\$2	7 1-10c.

* Per pound.

KANSAS.

Area, 50,187,520 acres. Population in 1870, 364,383.

Can land be purchased or rented in your district suitable for small farms on favorable terms?

* Lyon, Douglas, Riley, Atchison, Bourbon, Crawford, Cherokee, Neosho, Labette, Olathe, Johnson, Franklin, Anderson, Coffey, Allen, and Woodson: yes. Leavenworth: it is difficult to rent farms of less than 80 acres; but they may be purchased without trouble, and at reasonable rates.

What is the price per acre of small improved farms? State what proportion has been under cultivation, how much is fenced, and the kind of buildings?

Lyon: a few miles from town, good improved farms may be obtained at from \$10 to \$15 per acre. Douglas: \$8 to \$50, according to the improvements, &c. Riley: average, \$20; common frame buildings. Leavenworth: from \$30 to \$100; three-fourths fenced; small frame buildings; 10 miles from county town, from \$40 to \$50. Atchison: about \$10; one-third under cultivation. Bourbon, Crawford, Cherokee, Neosho, and Labette: \$10 to \$20; from one-third to one-half fenced; buildings generally poor. Olathe and Johnson: \$20 to \$30; log or frame buildings; fences of rail, board, stone, or hedge. Franklin, Anderson, Coffey, Allen, and Woodson: about \$20; one-half under cultivation; wooden buildings.

What is the price per acre of unimproved land, what proportion is cleared, and how much, if any, is fenced?

Lyon: \$3 50 to \$10 per acre; all prairie. Douglas: \$5 to \$20 for prairie land, \$10 to \$40 for timber land. Riley: \$2 to \$7; none fenced. Leavenworth: \$6 to \$30 for prairie land; bottom timber land, \$15 to \$50. Atchison: \$4 to \$8 for prairie. Bourbon, Crawford, Cherokee, Neosho, and Labette: \$5 to \$7, prairie. Olathe and Johnson: about \$10; generally prairie. Franklin, Anderson, Coffey, Allen, and Woodson: from \$2 to 10.

* Names of counties from which returns have been received.

What is the yearly rent of small improved farms? If rented on shares, what share does the owner receive? Does the latter provide stock, implements, or seeds?

Lyon: one-third the product, the lessee finding stock, seeds, &c.; one-half when the landlord finds all. Douglas: \$3 50 to \$5; shares same as above. Riley: shares same as above. Leavenworth: from one-third to one-half to owner, who rarely furnishes anything unless it be seeds; cash, from \$3 to \$7. Atchison: \$3, or one-third, providing nothing; one-half, providing stock, implements, &c. Bourbon, Crawford, Cherokee, Neosho, and Labette: \$5 per acre, or one-third of the crop. Olathe and Johnson: \$3, or one-third of the crop. Franklin, Anderson, Coffey, Allen, and Woodson: the same as above.

What are the chief articles of production, and what are the present prices of two or three of them?

Articles of production.	Prices.	Counties.
Wheat.....per bushel..	\$0 70 to \$1 00	Lyon, Riley.
Do.....do.....	80	Olathe, Johnson.
Do.....do.....	1 00	Coffey, Leavenworth, Atchison, Franklin.
Do.....do.....	1 25	Douglas, Bourbon, Crawford, Cherokee, Neosho, Labette, Franklin, Anderson, Allen, Woodson.
Corn.....do.....	40 to 45	Olathe, Johnson, Douglas, Riley.
Do.....do.....	50	Leavenworth, Lyons, Atchison, Franklin, Anderson, Allen, Woodson.
Do.....do.....	60 to 80	Coffey.
Do.....do.....	75	Bourbon, Crawford, Cherokee, Neosho, Labette.
Oats.....do.....	30	Olathe, Johnson, Douglas.
Do.....do.....	35	Atchison, Franklin, Anderson, Allen, Woodson.
Do.....do.....	40 to 50	Lyon, Coffey.
Potatoes.....do.....	30	Olathe, Johnson.
Do.....do.....	40	Lyon, Riley.
Do.....do.....	50	Coffey.

What is the distance to a market town, a railroad station, or a steamboat landing?

Lyon: a railroad here. Douglas: several railroad stations in this county, but no steamboat landing. Riley: extreme distance 60 miles; but a very small portion over 20 miles from Kansas Pacific or Central Branch Railroad. Leavenworth: Leavenworth City lies on east line of this county, nearly central from north to south, and 12 miles from west county line. Atchison: the Central Branch Union Pacific Railroad runs through this county, with a station or depot every 8 miles, and the Missouri River washes the eastern border. Bourbon, Crawford, Cherokee, Neosho, and Labette: a railroad. Olathe and Johnson: a railroad runs through the entire division. Franklin, Anderson, Coffey, Allen, and Woodson: average distance 5 miles.

What is the general quality of land, and the kind of timber?

Lyon: good prairie and timber land; oak, hackberry, and walnut. Douglas: no better land in the State; timber not very plenty; hardwood. Riley: rich bottoms and uplands; oak, walnut, hickory, hackberry, soft maple, honey locust, and cottonwood. Leavenworth: land prime, soil being good even in broken and rough land; red, white, and black oak, walnut, sycamore, and cottonwood. Atchison: deep vegetable mold, limestone base; timber—hickory, walnut, all kinds of oak, ash, hackberry,

cottonwood, and locust. Bourbon, Crawford, Cherokee, Neosho, and Labette: dark limestone soil; timber, good for Kansas. Olathe and Johnson: good timber is only found on the streams; oak, walnut, hickory, and cottonwood. Franklin, Anderson, Coffey, Allen, and Woodson: land good; timber—walnut, oak, hickory, elm, hackberry, &c.

For what kind of labor is there a demand?

Lyon: all kinds of mechanics can do well here now; we have immense immigration. Douglas: farm hands and mechanics command good wages most of the year. Riley: mechanical labor and farm labor. Leavenworth: farm and domestic labor principally; mechanics also required. Atchison: all kinds, more especially farm hands. Bourbon, Crawford, Cherokee, Neosho, and Labette: all kinds, particularly house servants. Olathe and Johnson: farm labor. Franklin, Anderson, Coffey, Allen, and Woodson: mechanical and farm labor.

What mills or factories, if any, are in operation or in progress requiring skilled labor?

Douglas: woolen-mills, flour-mills, machine-shops, furniture-shops, &c. Riley: saw and grist mills, paper-mill; woolen-mill soon to be built. Leavenworth: foundery, machine-shop, stove manufactory, woolen-mill, grist and saw mills, planing-mills, &c. Atchison: flour and some other mills and factories. Bourbon, Crawford, Cherokee, Neosho, and Labette: nine mills, one foundery, one woolen-mill, and others in process of construction. Olathe and Johnson: none but saw and grist mills. Franklin, Anderson, Coffey, Allen, and Woodson: woolen-mill and agricultural implement factory.

Are there in your vicinity any railroads or other public works in progress requiring common labor? If so, how far distant?

Lyon: great demand for hands and teams now on Atchison, Topeka and Southern Railroad, at this point. Douglas: several railroads have been built in this county, and several more are to be built soon. Riley: Southern Branch Pacific Railroad; 25 miles. Leavenworth: bridge across the Missouri River at this place, and railroads within 20 and 60 miles. Atchison: yes; the Central Branch Union Pacific Railroad will be extended 175 miles, and two other roads will be built this year. Bourbon, Crawford, Cherokee, Neosho, and Labette: three railroads are now being worked starting from this point. Olathe and Johnson: yes, right here. Franklin, Anderson, Coffey, Allen, and Woodson: two railroads are now building through this division.

Please state any advantages which your district can offer to laborers, mechanics, or small farmers? Is there much land, of good quality and well watered, yet unoccupied?

Lyon: all the land in this county is entered. Douglas: there is a large amount of unoccupied land, mostly prairie, in this county. Riley: Government land, subject to homestead occupation, by which any man can get a farm of 80 or 160 acres by paying \$18 and living on it five years. Leavenworth: abundance of such land yet unoccupied. Atchison: plenty of work for laborers at good wages, and for mechanics at paying prices; plenty of good land, well watered, yet unoccupied. Bourbon, Crawford, Cherokee, Neosho, and Labette: the land in this district is No. 1; we have a mild and healthful climate; our section offers superior inducements to those who come to work; a half crop pays here better than a full crop in the Northern States. Cattle require but little feed, and very often winter on the open plain. Olathe and Johnson: the best agricultural counties in the State, and over one-half is yet unoccupied. Franklin, Anderson, Coffey, Allen, and Woodson: plenty of land that will make good farms can be bought at reasonable

rates. Lyon: land is not as high at a distance from town this year, (1871,) owing to the fact that our railroads are now completed; and besides, there are 8,000,000 acres of land opened for settlement south and west of us that was not in market last year.

What are the prices of ordinary farm stock, sound and in good condition?

Counties.	Working oxen, per pair.	Working horses, each.	Working mules, each.	Milch cows, each.	Sheep, each.	Hogs, per pound.
Lyon	\$125	*\$60 to 200	\$100	\$40 to 60	\$2 50	5 to 8c. stock.
Douglas	125	100 to 125	\$125 to 150	40	1 75	7c. lb. gross.
Riley, Clay, Cloud, Wash- inton, and Republic.	120	100 to 150	150 to 200	30 to 50	\$3 00 to 5 00	4c. to 20c.
Leavenworth	100	125	150 to 175	30 to 75	2 50 to 3 50	8c. per lb.
Atchison	\$100 to 125	125	150	30	2 00	8c. gross.
Bourbon, Crawford, Cher- okee, and Labette.	80	125	125 to 150	40	3 00	9c. gross.
Franklin, Anderson, Coffey, Allen, and Woodson.	100 to 175	150 to 350	80 to 200	35 to 60	1 50	6c.
Johnson, Linn, and Wyandotte.	100	\$100	125	35	2 00	6c. per lb. gross.
Average	\$118 75	\$167 81	\$140 93	\$48 12	\$2 46	7½c.

*As to quantity.

NEBRASKA.

Area, 78,084,480 acres. Population in 1870, 122,994.

Can land be purchased or rented in your district suitable for small farms on favorable terms?

Washington, Burt, Dakota, Dixon, Cedar, L'Eau-qui-court, Cuming, Stanton, Madison, and Douglas: answer affirmatively.

What is the price per acre of small improved farms? State what proportion has been under cultivation, how much is fenced, and the kind of buildings.

Washington, Burt, Dakota, Dixon, Cedar, L'Eau-qui-court, Cuming, and Stanton: from \$12 50 to \$30, according to improvements, &c.; about two-thirds under cultivation; fencing limited, except where timber is abundant; the "herd law" is the protection of crops; good buildings, mostly frame on brick cellar walls. Douglas: \$15; two-thirds cultivated; no fences; buildings poor.

What is the price per acre of unimproved land, what proportion is cleared, and how much, if any, is fenced?

Washington, Burt, Dakota, Dixon, Cedar, L'Eau-qui-court, Cuming, and Stanton: from \$2 to \$10; mostly prairie; timber lands rate from \$10 to \$50; none fenced, and but little cultivated. Douglas: from \$5 to \$10, unless bought from Government at \$2 50.

What is the yearly rent of small improved farms? If rented on shares, what share does the owner receive? Does the latter provide stock, implements, or seeds?

Washington, Burt, Dakota, Dixon, Cedar, L'Eau-qui-court, Cuming, and Stanton: money rents are unusual; on shares, land and buildings only furnished, one-third of the product; implements and team, with seed also furnished, two-thirds of the product received by the owner. Douglas: shares, one-half; stock, implements, and seeds furnished.

What are the chief articles of production, and what are the present prices of two or three of them?

Articles of production.	Prices.	Counties.
Spring wheat... per bush..	\$0 50 to \$0 60	In all the counties above named.
Corn in the ear....do.....	30 to 35	In all except Douglas.
Do.....do.....	40	Douglas.
Oats.....do.....	25	Burt, Dakota, Dixon, Cedar, L'Eau-qui-court, Cuming, Stanton.
Do.....do.....	35	Douglas.
Potatoes.....do.....	50	Douglas.
Do.....do.....	35	In all others.

What is the distance to a market town, a railroad station, or a steamboat landing?

Washington, Burt, Dakota, Dixon, Cedar, L'Eau-qui-court, Cuming, and Stanton: average, 15 miles. Douglas: from 2 to 50 miles.

What is the general quality of land and the kind of timber?

Washington, Burt, Dakota, Dixon, Cedar, L'Eau-qui-court, Cuming, and Stanton: land of the best quality, with some few exceptions; the timber is mostly cottonwood, willow, box-alder, ash, and maple on bottom lands, and oak, walnut, elm, &c., on uplands. Douglas: land rich undulating prairie, well watered; timber scarce; the herd laws render fences unnecessary.

For what kind of labor is there a demand?

Washington, Burt, Dakota, Dixon, Cedar, L'Eau-qui-court, Cuming, and Stanton: all kinds have been scarce and high; the general apprehension is of a material decline owing to general, not local, causes. Douglas: in the country, farm hands; in the towns, building labor, particularly bricklayers; also house servants.

Are there in your vicinity any railroads or other public works in progress requiring common labor? If so, how far distant?

Washington, Burt, Dakota, Dixon, Cedar, L'Eau-qui-court, Cuming, and Stanton: the Elkhorn Valley and the Northwestern Railroads both pass through this district. Douglas: two railroads are in progress from Omaha.

Please state any advantages which your district can offer to laborers, mechanics, or small farmers. Is there much land of good quality and well watered, yet unoccupied?

Washington, Burt, Dakota, Dixon, Cedar, L'Eau-qui-court, Cuming, and Stanton: there are two advantages—first, that labor of all kinds commands high wages, and that cheap land is always a resort in case of any falling off in the demand for labor. Douglas: this county needs agriculturists who have sufficient capital to develop it; there is plenty of land of the richest quality, well watered, waiting for occupants.

What are the prices of ordinary farm stock, sound and in good condition?

Counties.	Working oxen, per pair.	Working horses, each.	Working mules, each.	Milch cows, each.	Sheep, each.	Hogs, each.
Washington, Burt, Dakota, Dixon, Cedar, L'Eau-qui-court, Cuming, Stanton.	\$100 00	\$125 00	\$140 00	\$45 00	\$2 50	\$20 00
Douglas.....	140 00	150 00	150 00	40 00	3 00	\$15 00
Average.....	\$120 00	\$137 50	\$145 00	\$42 50	\$2 75	\$17 50

[The returns from the State of Nebraska being so meager, the following article, vouched for by the Honorable P. W. Hitchcock, United States Senator from that State, is inserted at his request:]

GEOGRAPHICAL FEATURES.—By the Kansas and Nebraska act, approved May 23, 1854, Nebraska comprises all that portion of the North-west Territory lying north of the 40th degree north latitude and between the Missouri and Big Sioux Rivers and the middle crest of the Rocky Mountains.

The formation of the Territories of Colorado, Montana, and Dakota has reduced the boundaries of Nebraska, and it now lies between the 40th and 43d parallels north latitude and 95 and 104 degrees of longitude west from Greenwich. It extends from the Missouri River nearly to the Rocky Mountains, with an extreme length of 412 miles, decreasing to 310 miles on the southern border, its extreme width being 208 miles, diminishing to 138 miles on the west. The total area is 75,995 square miles, or 48,636,800 acres of the best agricultural lands.

HISTORY.—Up to the year 1849 no permanent settlement had been made. The country, however, became gradually better known until the Territory was organized in 1854 and opened up to settlement during the fall of the same year.

On the 1st of March, 1867, Nebraska was admitted as a State, being the first with a constitution recognizing impartial suffrage as a condition precedent to her admission into the Union. From its organization as a Territory until 1861, the population of Nebraska was very small, quite unsettled, and very little had been done toward its development; and from 1861 to 1865, during the rebellion, immigration to this State was comparatively light; but with the advent of peace a new era dawned in her history, which is developing wealth and power within her borders by an immigration unprecedented in the history of any country.

POPULATION.—The population of Nebraska in 1860 was 28,641, and in 1870, 122,994; exhibiting an increase of 330 per cent. in ten years. Statistics clearly show that more than one half this entire increase has accrued within the past four years. Immigration is flowing into the State the present year with unexampled rapidity, and there can scarcely be a doubt that Nebraska will contain 200,000 inhabitants at the close of 1871.

GEOLOGICAL FORMATION—SOIL.—The soil consists of a rich black loam and vegetable mold from two to ten feet in depth. It is slightly impregnated with lime, free from stones and gravel, with just enough of sand to keep it friable. It possesses the singular properties of resisting both unusual wet and continued drought. The soil, although easily penetrated with a spade to a depth of 100 feet, has a tenacity that renders unnecessary the walling of cellars or wells. The subsoil is generally a yellowish clay not impervious to water. The soil of the upland is similar to that of the bottom, but not so deep, an intermixture of silicious alluvial, vegetable mold, clay, and lime, forming altogether the best of soils of great fertility, and with very little labor producing abundance of all kinds of cereal, vegetable, and root crops, as well as of the fruit and forest trees grown in this latitude.

The great marl deposits of Nebraska extend from the Missouri River westward as far as surveyed, about 190 miles, and are known to extend to the western boundary of the State. About 70 miles west of the Missouri there is a change in the composition, quality, and strength of the soil, especially in the uplands; the soil is not as deep, is more compact and clayey with a lighter tinge, a little more sandy, while the rich marl underlying the surface frequently present a grayish and brownish appear-

ance, containing nodules of a chalky lime in small quantities; yet not unfrequently, as along the valley of the Big and Little Sandy, Little Blue, Elkhorn, and Republican, and their numerous tributaries, is found a deep rich soil, which for the purpose of agriculture and stock-raising is well adapted to a luxuriant growth of the grasses and the cultivation of all kinds of grain and root crops.

There is probably no soil on earth that under the plow becomes more loose and mellow; can be worked after a hard week's rain with a few hours sunshine; one plowing will bring two crops; small grain can be sown as soon as frost is out of the ground six inches, as it is generally dry on the surface. We seldom have mud, and can boast of good and beautiful public roads, which are kept in repair at an average annual cost per mile of about four dollars.

Numerous testimonials might be produced, including those of Bayard Taylor, Professor F. V. Hayden, State geologist, Vice-President Colfax; the editors of the New York Tribune, Springfield Republican, Rural New Yorker and Baltimore American; but the following from the Rural New Yorker, will suffice:

The finest garden mold in the State of New York is not a whit better than the average Nebraska soil, which is light and free from lumps and stones, dark colored, easily worked, and eminently productive. I would advise all nurserymen in the East to import a car load of it to grow their most delicate plants in. They need take no precaution, but send their orders to any postmaster or railroad agent, and tell him to dig the first dirt he comes to and send it along.

LIME.—This State abounds in limestone formations, ledges, and chalk shales, carbonate of lime, plaster, and cement, while the different colored marls, especially in the western counties, contain more or less quantities of nodules of lime, and offer as desirable a soil for the growth of clover, root crops, and the cereals as the world affords. Extensive beds of chalk limestone, producing the best lime of any rock in the State and resembling the chalk-beds of Europe, are found in various portions of the State. Excellent hydraulic lime for cement, and strata of gypsum exist in different localities in plentiful quantities.

STONE.—Building-stone is abundant throughout the State, embracing a great variety. Specimens of beautiful marble and granite, cream-colored magnesian limestone, bluish limestone resembling the Trenton stone, whitish limestone, excellent for building purposes, a fine lilac-colored carbonate of lime for ornamental purposes, rusty sandstone, dark yellowish gray coarse-grained sandstone, red sandstone, and dark, reddish free-stone, rich soapstone, and slate are also found. The peculiarities of several of the above varieties of stone are, that when first exposed to the air they are so soft as to be easily cut with a saw or ax and blocked out in any shape, but exposure to the air hardens them so that they can scarcely be marked with a knife.

SALT.—No State in the Union contains better resources for a superior quality and plentiful quantities of salt than Nebraska. The great salt basin at Lincoln includes an area of about twelve by twenty-five miles, through which Salt Creek runs; besides it is full of salt springs flowing in inexhaustible quantities, salt being manufactured by boiling, washing, and solar evaporation, and containing 28 to 30 per cent. of salt by weight. A flowing salt well at Lincoln, the State capital, emits brine enough in twenty-four hours to produce at least one thousand barrels of salt.

COAL.—Coal has been but partially developed in Nebraska, which fact has been considered by some as evidence of the scarcity of that article, yet developments already made, particularly in Nemaha, Johnson, Pawnee, Richardson, and Gage counties, in the southeastern portion of the

State, have removed the doubts of many, and established the fact that there are inexhaustible beds of excellent coal beneath the surface. In mines that have been opened in each of the above counties, the average yield thus far has been estimated at 50,000 to 75,000 tons per acre.

CLIMATE.—Our climate is the most healthful and delightful of the temperate zone. The atmosphere is pure, dry, and invigorating. Chills and fever and other malarious diseases, which prevail to a great extent in many Western States where the lands are low and even, are unknown here. No portion of the United States is less affected with epidemic diseases. Owing to the natural absence of humidity in the atmosphere physicians unite in recommending residence here for persons afflicted with lung diseases, and such complaints as rheumatism, who are greatly relieved if not entirely cured. There are no swamps or stagnant pools to generate miasma.

Statistical tables carefully compiled from a series of observations, through many years, show the following mean temperature: Spring, $49^{\circ} 3''$; summer, $74^{\circ} 7''$; autumn, $51^{\circ} 4''$; winter $31^{\circ} 1'$; giving an average mean for the year of $51^{\circ} 6''$.

The mean and annual rain-fall is 27.98 inches, and is distributed as follows: Spring, 10.8; winter, 1.31; the largest fall being in April, averaging 6.57; May, 4.36; and June, 5.07; none of the other months reaching 3.00; only two of them 2.00; three of them 1.00, and the rest being less than 1.00.

AGRICULTURAL ADVANTAGES.—This is preëminently a wheat-growing country: the principal productions of the soil are cereals and vegetables, wheat, corn, oats, rye, barley, and all kinds of root-crops known to the temperate zone, being grown with great success. The report of the Department of Agriculture at Washington, for May and June, 1870, with estimates of wheat compared with the area of 1869, gives Nebraska an increase in winter wheat of twenty-five per cent., a greater percentage than any State in the Union. Kansas stands next, at seventeen per cent. All agricultural reports from that Department, in estimates of area and yield, invariably place Nebraska at the head of the list. The same Department reports that the average yield of wheat (spring wheat) per acre during ten years, from 1856 to 1866, was $26\frac{1}{2}$ bushels; corn ranges from 40 to 75 bushels, according to season and thoroughness of cultivation; oats, from 30 to 60 bushels; barley, from 40 to 60 bushels; potatoes, from 75 to 300 bushels, and other vegetables grow in like profusion.

MANUFACTURING ADVANTAGES.—Manufactures and manufacturing capital are greatly needed. There is abundance of water-power; and fine openings present themselves for the establishing of agricultural machine-shops, woolen-mills, foundries, wagon manufactories, and flour-mills, and nothing would prove more beneficial to Nebraska than their actual operation, while the inducements offered to capital and labor in this department are flattering.

EDUCATIONAL PRIVILEGES.—In no State in the Union has more ample provision been made to meet the educational wants of the people than in Nebraska.

While in other Western States but one section—640 acres, in each township, (being six miles square,) was set apart for school purposes, in Nebraska, the General Government, with a wise liberality, has donated to this State *two sections*—1,280 acres—or one eighteenth part of our entire area, as a permanent endowment of the public schools. There are good school-houses in every district.

LANDS.—Nebraska presents the last chance to obtain free homes.

West of Nebraska begin the mountains—east of it the lands are principally occupied. Now lands are cheap, but the price will constantly increase in the future, and not many years will elapse ere free lands for the landless will become only a record of history.

The lands may be classified as follows:

1st. United States lands, *i. e.*, lands yet undisposed of by the General Government.

2d. State lands, *i. e.*, lands belonging to the State, granted for the following purposes by congressional authority:

	Acres.
For erection of State house	12, 800
For erection of penitentiary	32, 000
For erection of university	56, 000
For erection of agricultural college	90, 000
Saline lands	56, 000
Internal improvements	500, 000
Common schools, (State, as admitted)	2, 643, 080
Total	<u>3, 389, 880</u>

3d. Railroad lands, *i. e.*, land included in railroad grants, which in the entire State aggregate millions of acres.

4th. Land on sale, *i. e.*, land bought up from Government and held for sale by non-residents or speculators.

5th. Improved farms, owned mostly by citizens of the State.

The homestead law entitles any person who is the head of a family, or is 21 years of age, (or a minor, and has served fourteen days in the Army or Navy of the United States,) and is a citizen of the United States, or has filed a declaration to become such, to the right of a homestead on surveyed lands. This is conceded to the extent of 160 acres of \$1 25 land, or 80 acres of \$2 50 land, upon which bona fide residence, improvement, and cultivation must be made within six months from the date of the entry, and continued five years, to entitle the applicant to a patent from Government.

The fees for entering a homestead amount to ten or twelve cents per acre. The settler can get a final deed from Government at any time, by proving residence and improvement, and paying \$1 25 per acre. Lands obtained under the homestead laws are exempted from liability for debts contracted prior to the issuing of the patent therefor.

The preëmption law requires the party to file with the district land office his declaratory statement as to the fact of his settlement within thirty days from the date of said settlement, and within one year from that date, he must appear before the Register and Receiver and make final proof of his actual residence on, and cultivation of, the tract, and secure the same by paying cash, or by filing a warrant duly assigned to the preëmptor.

The State lands are occasionally thrown into market and sold to the highest bidder. The lands devoted to common schools are sold at auction in June of each year at the various county seats. The terms of sale are one-tenth cash and interest on the balance at ten per cent. per annum for ten years, when the remaining nine-tenths become due. The railroad lands are in the possession of such companies as have received them as grants or subsidies from Congress to aid in the construction of their roads. They are also thrown on the market from time to time on *advantageous* terms. Improved farms can be purchased in any quarter

at prices varying from ten to fifty dollars per acre, according to location and value of improvements.

RAILROADS.—The railway system of Nebraska is of course but partially developed, yet few of the new States have made more progress in that direction.

The great Union Pacific Railroad, which has its initial point at Omaha, traverses the entire length of the State from east to west, a distance of more than 400 miles. Its line runs nearly in a direct east and west course, up the valley of the Platte to the western boundary of the State, and thence in the same general direction to Ogden, in the Territory of Utah, where it forms a connection with the Central Pacific Railroad of California, the two roads constituting the great overland route by rail between the Missouri River and San Francisco.

The Burlington and Missouri River Railroad, in Nebraska, is completed and in running order from Plattsmouth, Nebraska, (four miles south of the mouth of the Platte River,) to Lincoln, the State capital. This road is rapidly progressing from Lincoln westward to Fort Kearney, where it will form a connection with the Union Pacific.

The Midland Pacific Railroad is completed from Nebraska City to Lincoln, the State capital, and it is proposed to extend this road westward to a connection with the Union Pacific at Grand Island, 150 miles west of Omaha, at an early day.

The Nemaha Valley, Lincoln and Loup Fork Railroad runs from Rulo via Falls City, Salem, Humboldt, Table Rock, Tecumseh, and Sterling to Lincoln; thence northwest via Columbus, on the Union Pacific Railroad, into the heavy-timbered regions of the Northwest. Twenty miles of this line is already completed, and arrangements have been perfected which will secure the early construction of the entire road.

The Sioux City and Pacific Railroad enters the State of Nebraska at Blair, in Washington County, 30 miles north of Omaha. The line is completed and in running order from Blair to Frémont, in Dodge County, (on the Union Pacific Railroad,) a distance of 3 miles, at which point it connects directly with the Frémont and Elkhorn Valley Railroad. This road is in running order to West Point, in Cuming County, a distance of 30 miles from Frémont, and the line is graded to Norfolk, in Madison County, (42 miles northwest of West Point.) The road will be pushed forward to the northern boundary of the State (the Niobrara River) at an early day, and thence to a connection with the Northern Pacific Railroad.

The Omaha and Northwestern Railroad is completed from Omaha to Blair, a distance of 30 miles, where it connects with the Sioux City and Pacific Railroad for Frémont, West Point, Norfolk, &c. The road will be extended to the northern boundary of the State, and thence to a connection with the Northern Pacific at Fort Berthold, in Dakota Territory.

The Omaha and Southwestern Railroad runs from Omaha via Lincoln to Beatrice and the Southwest, connecting with the Beatrice, Fort Kearney and Pacific Railroad at Beatrice, and the St. Joseph and Denver at some point on the Little Blue River, southwest of Beatrice. The road is now in running order from Omaha to the Platte River, a distance of 23 miles, where it connects with the line running from Plattsmouth to Lincoln.

Various other lines of railway are projected in different portions of the State and will doubtless be constructed at an early day; but only those have been named in this paper which are either wholly or partially completed.

STOCK-RAISING.—For stock-raising the resources are ample. The

vacant lands of the State and of the railroads give the herdsmen a wide range. A herd law, which renders fences unnecessary, and acts as a protection to the grain-grower, is an actual benefit to the stock-raiser. Much attention has been devoted to this department of agriculture. This was the natural home of wild horses and cattle; and the Indian ponies, in proportion to their bulk, are as hardy a race of animals as can be found anywhere. The grasses are nutritious and abundant, and whether cured or green, cattle feed with avidity and fatten upon them without grain of any kind.

Many fine horses and mules, and the best breeds of horned cattle, swine, and sheep are raised; the high ground and climate being particularly favorable to the latter. Hogs thrive well, and with corn at 35 to 50 cents per bushel, pigs a few months old at \$4 to \$5 per head, and fattened hogs at 10 cents per pound, live weight, no market is needed for corn, as feeding it to hogs would prove a very lucrative business. Sheep-raising and wool-growing are becoming more profitable as the country improves. Five hundred dollars' worth of sheep are exempted from taxation.

Blue grass and clover do well. All the shelter required for stock are the straw stacks, which accumulate from the annual threshing of the wheat crops. A frame of poles is set up and the straw thrown over it, leaving one side open, and under this the cattle stand and feed in perfect security from the severest storms and in the most inclement seasons.

Ten acres of cottonwood, locusts, and black walnuts, planted 8 feet apart each way, will, after five years' cultivation, supply all the fence posts and fuel that a family of five to seven will require. The herd law now in force saves timber for fencing. There is twice as much timber in this State now as there was ten years ago. Lumber now ranges from \$25 to \$50 per thousand feet for pine, and \$20 to \$26 for cottonwood. Timber-growing is now a profitable business; but with the planting of forest trees and the protection of timber from fire, with the growing of hedge fences and the increased facilities for transportation of pine from the North, and the development of our coal mines, lumber and fuel will be proportionately increased in quantity and quality and decreased in value.

A premium is offered by the State for the cultivation of forest and fruit trees by exempting from taxation the real property of each taxpayer to the extent of *one hundred dollars* for every acre of forest trees, and fifty dollars for every acre of fruit trees per year, for five years; the forest trees not to exceed 12 feet apart, and fruit trees 33 feet apart.

Of all the modes of fencing that have been tried, none are cheaper and more durable than hedges. Osage orange, white thorn, white willow, and honey locust have been tried here, and the Osage has been found to be the cheapest and best suited for hedging, and in from three to four years, with proper care, makes a good and everlasting live fence, sufficient to turn all kinds of stock.

FRUITS.—Of the capacity of this State for fruit cultivation, there is no longer any question. Apples, peaches, pears, plums, cherries, grapes, quinces, and profuse varieties of the small fruits, attest the adaptability of both soil and climate to the production of the choicest fruits. At the last State agricultural fair, the display of all kinds of Nebraska fruit received admiration for quantities and sizes as well as healthy condition. Fruit trees mature earlier than in New England. To be successful, home nurseries must be patronized, trees of home production and not imported should be planted; besides, notions of cultivation applicable elsewhere must be left behind, and those essaying fruit culture here must

adapt themselves and their young orchards to their new circumstances. Wild fruits—plums, grapes, and all kinds of berries—abound in the groves along the streams, and on the prairies, are of remarkable size, and thrive luxuriantly. All kinds of Nebraska fruit, wild or cultivated, are large, healthy, and delicious.

THE GOVERNMENT.—Nebraska's motto is "Equality before the law." No discrimination is made between a native or naturalized citizen. Debtors are protected by a law exempting a home and the necessities of life from forced sale on execution; but, on the other hand, it guarantees the creditor full and speedy justice at the hands of a well-regulated system of judiciary. With the exception of Iowa, Nebraska is believed to be the only State in the Union which is entirely *free from debt*, and more than ample provision made for all the public buildings, improvements, &c. The constitution forbids incurring a debt beyond fifty thousand dollars; thus a low rate of taxation is insured for all time to come. Some of the counties have loaned their credit to a limited extent in aid of railroad enterprises.

Improvements under the value of \$1,000 are exempt from taxation.

Immigrants from other countries, having declared their intentions to become citizens and resided in the State one year, and citizens from other States, residing in the State six months, are entitled to all the rights and privileges of citizenship.

Nebraska welcomes the immigrant to the enjoyment of her advantages, and will reward his industry with generous recompense.

COLORADO.

Area, 67,723,520 acres. Population in 1870, 39,864.

Can land be purchased or rented in your district suitable for small farms on favorable terms?

Frémont, Jefferson, El Paso, Las Animas, Huerfano, Weld, and Arapahoe: it can. Gilpin: yes, to a limited extent.

What is the price per acre of small improved farms? State what proportion has been under cultivation, how much is fenced, and the kind of buildings.

Frémont: \$10; one-half improved and fenced; log buildings. Gilpin: improved farms, fenced, and having good log or frame buildings, with about one-fourth under cultivation, are worth from \$5 to \$10. Jefferson: \$5 to \$25; price generally depends upon facilities for irrigation; usually several farms are fenced together; there are few division fences; houses generally small. El Paso: improved lands are worth from \$4 to \$6; only a small portion fenced; buildings tolerably good. Las Animas and Huerfano: about \$5; a small portion under cultivation; buildings of adobe and logs. Weld: \$20 to \$25; amount under cultivation, from one-third to two-thirds; same proportion fenced; buildings generally of logs. Arapahoe: from \$5 to \$50; a small portion under cultivation; buildings generally frame.

What is the price per acre of unimproved land, what proportion is cleared, and how much, if any, is fenced?

Frémont: \$1 25 to \$5; all cleared, but not fenced. Gilpin: land can be obtained to a limited extent at Government price, (\$1 25 per acre,) most of the land being rocky and mountainous, and the tillable portion confined to the valleys. Jefferson: \$4 to \$15; all prairie land, without

timber or fences. El Paso: unimproved lands are worth from \$1 25 to \$2 50; all prairie; none fenced. Las Animas and Huerfano: from \$1 25 to \$10. Weld: from \$2 50 to \$10; prairie land, all cleared; none fenced. Arapahoe: plenty of Government land for sale at \$1 25 and \$2 50; also about 2,000,000 acres of railroad land at from \$1 to \$10, on easy terms as to time; very little under fence.

What is the yearly rent of small improved farms? If rented on shares, what share does the owner receive? Does the latter provide stock, implements, or seeds?

Frémont: \$3 per acre for land under cultivation, or one-half the crop with stock, seeds, &c., furnished. Gilpin: one-half the product, the owner furnishing everything except labor. Jefferson: few cash rents, except for small lots for garden purposes; on shares, same as above. El Paso: \$3 per acre; shares, as above. Las Animas and Huerfano: shares, one-half; implements, stock, and seeds furnished. Weld: when owner furnishes everything, he gets two-thirds; otherwise, one-half. Arapahoe: owner receives one-third for the use of the land.

What are the chief articles of production, and what are the present prices of two or three of them?

Articles of production.	Prices.	Counties.
Wheat..... per bushel..	\$1 00	El Paso, Las Animas, Huerfano.
Do..... do.....	1 50	Frémont.
Do..... per pound..	2½	Weld.
Do..... do.....	2½	Jefferson.
Do..... do.....	3	Arapahoe.
Corn..... per bushel..	1 00	Frémont, Las Animas, Huerfano.
Do..... per pound..	3	Arapahoe.
Oats..... per bushel..	67	Frémont.
Do..... do.....	70	El Paso.
Do..... do.....	\$0 70 to 85	Las Animas, Huerfano.
Do..... per pound..	2	Weld.
Do..... do.....	2½	Jefferson, Arapahoe.
Potatoes per bushel..	1 75	Gilpin.
Do..... per pound..	2½	Jefferson.
Do..... do.....	3	Arapahoe.
Barley..... do.....	2½	Weld.
Do..... do.....	3	Arapahoe.

What is the distance to a market town, a railroad station, or a steamboat landing?

Frémont: from half a mile to 10 miles. Gilpin: market at home; about 65 miles to end of Denver Pacific Railroad, and 200 to Kansas Pacific Railroad. Jefferson: principal mines within 25 miles; railroad from Golden City to Denver. El Paso, Las Animas, and Huerfano: markets at Trinidad and Sheridan; 150 miles to railroad. Weld: Denver Pacific Railroad at this point; market 50 miles north or south. Arapahoe: roads are now completed to Denver, the capital; the mines afford a fair market for all kinds of farm products.

What is the general quality of land and the kind of timber?

Frémont: the land is lime and marl, being the wash from the mountains; pine timber on foot-hills. Gilpin: the land is good, but it lies in narrow strips, in gulches and ravines; the timber principally pine and spruce, in great abundance. Jefferson: rich alluvial soil (prairie;) pine and spruce timber in the mountains. El Paso: rich land and good pine timber. Las Animas and Huerfano: excellent land; by irrigation 80

bushels of wheat to the acre have been obtained; also 25 bushels to the acre of Australian corn; the timber is pine, oak, cottonwood, balsam fir and some cedar. Weld: clay and sandy; the timber is pine; none nearer than the mountains, 30 miles distant. Arapahoe: soil almost universally good; pine, hemlock, fir, and cottonwood timber.

For what kind of labor is there a demand?

Frémont: all kinds. Gilpin: miners and common laborers and female servants; there is a demand for all kinds of labor during summer and fall. El Paso: mechanics. Las Animas and Huerfano: good men are wanted in all departments of labor. Weld: very little demand for any kind at present, unless it can be furnished cheaply—Chinamen for instance. Arapahoe: all kinds, female servants more especially.

What mills or factories, if any, are in operation or in progress requiring skilled labor?

Frémont: flour and saw mills, cabinet-shops, woolen factories, tanneries, and furnaces; agricultural implement manufactories are much needed. Gilpin: none of any magnitude, except quartz-mills, which are being put up constantly. Jefferson: flour-mills, paper-mill, fire-brick works, and potteries. Las Animas and Huerfano: four flour-mills and three saw-mills; a good woolen-mill is required. Weld: flour-mills. Arapahoe: quartz-mills, saw-mills, flour-mills, planing-mills, potteries, one paper-mill, one machine-shop, and a woolen-mill.

Are there in your vicinity any railroads or other public works in progress requiring common labor? If so, how far distant?

Gilpin: Colorado Central Railroad, 20 miles; Denver Pacific Railroad, 66 miles; Kansas Pacific Railroad, 200 miles. Jefferson: two railroads to Denver, one from Denver to Golden. Las Animas and Huerfano: Kansas Pacific, 150 miles distant. Weld: railroad to Denver. Arapahoe: over 300 miles of railroad now completed.

Please state any advantages which your district can offer to laborers, mechanics, or small farmers. Is there much land, of good quality and well watered, yet unoccupied?

Frémont: there are more than 20,000 acres of farming land in Frémont County, and range for all the stock which may be brought; the raising of stock is cheaper here than elsewhere, as feeding with hay or grain is unnecessary; the land is very productive and suited equally to grain, vegetables and fruit. Gilpin: the advantages for laborers and mechanics are good; the lodes requiring common labor are sufficient to give employment to a large population; and the quartz-mills and reducing works constantly in course of construction give employment to large numbers of mechanics. Jefferson: there is plenty of good land unoccupied, but it requires irrigation; much of it has been taken up during the past season. El Paso: there is little farming land unoccupied, but there are plenty of good situations for stock farms; as a stock-raising country this region is unsurpassed, stock running at large all the year, subsisting entirely on the range. Las Animas and Huerfano: no country is known where a poor man who is willing to work can obtain a good living and something besides, easier than in Southern Colorado; there is an abundance of land yet unoccupied, irrigation is easy, and water is abundant for stock or manufacturing purposes. Weld: plenty of land unoccupied; much of it has been improved, however, during the past season. Arapahoe: good stock farms can be had in abundance at Government price; the whole Territory presents unusual facilities for stock-raising.

What are the prices of ordinary farm stock, sound and in good condition?

Counties.	Working oxen, per pair.	Working horses, each.	Working mules, each.	Milch cows, each.	Sheep, each.
Fremont	\$110 to 150	\$150	\$150	\$30 to 50	\$5 00
Gilpin	125	\$150 to 200	\$150 to 200	60	3 00
Jefferson	100 to 135	150	150 to 200	50	2 50 to 3 00
El Paso	120	150	175	50	2 00
Las Animas and Huerfano	65 to 90	175	175 to 200	35 to 70	1 00 to 2 00
Weld	125	75 to 150	150 to 200	50	2 00 to 3 00
Arapahoe	125	150 to 200	150 to 200	50	3 00 to 5 00
Average	\$117 14	\$155 28	\$173 14	\$50 27	\$3 25

DAKOTA.

Area, 223,601,920 acres. Population in 1870, 14,181.

Can land be purchased or rented in your district suitable for small farms on favorable terms?

Yankton: yes; our lands are open to actual settlers under the pre-emption and homestead laws.

What is the price per acre of small improved farms? State what proportion has been under cultivation, how much is fenced, and the kind of buildings.

Yankton: improved farms five miles from Yankton sell for \$5, \$7, and \$10 per acre, about fifty acres of each being cultivated and fenced; buildings, log or frame.

What is the price per acre of unimproved land?

Yankton: unimproved land can be had ten miles from the town of Yankton at Government price, \$1 25 per acre.

What is the rent of small improved farms? If rented on shares, what share does the owner receive? Does the latter provide stock, implements, or seeds?

Yankton: the owner provides stock, implements, seeds, &c., and receives one-half of the product.

What are the chief articles of production, and what are the present prices of two or three of them?

Yankton: corn 60 cents per bushel; wheat, oats, and potatoes 50 cents each; rye, hops, and all sorts of vegetables.

What is the distance to a market town, a railroad station, or a steamboat landing?

Yankton: we have a first-class market—a home consumption for all our products. Sioux City the terminus of railroad 60 miles from this place; steamboat landing at Yankton.

What is the general quality of land and the kind of timber?

Yankton: dark sandy loam, from five to seven feet deep, the very best quality, producing 40 bushels of wheat to the acre, 100 bushels of corn, 60 bushels of oats; the timber consists of cottonwood, pine, oak, and cedar, all along the banks of rivers.

For what kind of labor is there a demand?

Yankton: there is a great demand for carpenters, bricklayers, and masons, farm hands, servant girls, and laborers.

What mills or factories, if any, are in operation or in progress requiring skilled labor?

Yankton: flour-mills and saw-mills only.

Are there in your vicinity any railroads or other public works in progress requiring common labor? If so, how far distant?

Yankton: a railroad is in process of construction at Sioux City, in Iowa, 60 miles from this place, and a road to be completed to Yankton next year.

Please state any advantages which your district can offer to laborers, mechanics, or small farmers. Is there much land, of good quality and well watered, yet unoccupied?

Yankton: I can safely recommend Dakota to the farmer as being superior in its advantages to any other portion of country which I have seen in the Western or Eastern States. The land produces bountifully; and I have testimony of farmers from Iowa, Illinois, Wisconsin, and Michigan to the fact that those States cannot compete with Dakota in crops.

What are the prices of ordinary farm stock, sound and in good condition?

Yankton: working oxen per pair, \$150; working horses each, \$125; working mules each, \$150; milch cows each \$30 to \$60; sheep each, \$5; hogs per pound, 18 cents.

IDAHO.

Area, 210,160,000 acres. Population in 1870, 14,998.

Can land be purchased or rented in your district suitable for small farms on favorable terms?

Nez Perces and Ada: it can.

What is the price per acre of small improved farms? State what proportion has been under cultivation, how much is fenced, and the kind of buildings.

Nez Perces: \$10 per acre, per quarter section; forty or fifty acres under cultivation; buildings of logs. Ada: \$8: from one-third to one-half under cultivation and fenced; buildings principally of logs.

What is the price per acre of unimproved land, what proportion is cleared, and how much, if any, is fenced?

Nez Perces: plenty of Government land, prairie, (good,) \$1.25 per acre. Ada: \$3; nearly all cleared, none fenced.

What is the yearly rent of small improved farms? If rented on shares, what share does the owner receive? Does the latter provide stock, implements, or seeds?

Nez Perces: on shares; the owner furnishes team and seeds, and receives one-half the crop. Ada: owner receives one-third of the crop.

What are the chief articles of production, and what are the present prices of two or three of them?

Nez Perces: wheat, oats, barley, and vegetables; "grain," 2½ to 3 cents per pound. Ada: wheat, \$2 50 per bushel, oats, \$1 25, barley, \$1 50, potatoes, 5 cents per pound.

What is the distance to a market town?

Nez Perces: to market town 40 miles. We have a home market. Ada: from 1 to 50 miles to a market town.

What is the general quality of land and the kind of timber?

Nez Perces: good land; the timber is pine and fir. Ada: low lands, black alluvial; uplands sandy and gravelly; timber consists of balm and willow.

For what kind of labor is there a demand?

Nez Perces: farm laborers and gold miners; the latter receive \$5 per day. Ada: farm hands, teamsters, and carpenters.

What mills or factories, if any, are in operation or in progress requiring skilled labor?

Nez Perces: saw-mills. Ada: flour-mills and distilleries.

Are there in your vicinity any railroads or other public works in progress requiring common labor? If so, how far distant?

Nez Perces and Ada: none in this immediate vicinity.

Please state any advantages which your district can offer to laborers, mechanics, or small farmers. Is there much land, of good quality and well watered, yet unoccupied?

Nez Perces and Ada: plenty of good land unoccupied, surrounded by a mining country, which will furnish a market for all the agricultural productions of the vicinity.

What are the prices of ordinary farm stock, sound and in good condition?

Counties.	Working oxen, per pair.	Working horses, each.	Working Mules, each.	Milch cows, each.	Sheep, each.	Hogs, each.
Nez Perces.....	\$150	\$100	\$100	\$50 00	\$5 00	\$10 00
Ada.....	150	200	200	65 00	4 00	15 00
Average.....	\$150	\$150	\$150	\$57 50	\$4 50	\$12 50

IV. PACIFIC STATES AND TERRITORIES.

CALIFORNIA.

Area, 120,947,840 acres. Population in 1870, 560,285.

Can land be purchased or rented in your district suitable for small farms on favorable terms?

Los Angeles, Santa Clara, San Luis Obispo, San Bernardino, Tulare, Stanislaus, Butte, Shasta, Tehama, Siskiyou, Plumas, Colusa, Sutter, Yuba, Lassen, Napa, Sonoma, and Humboldt: it can.

What is the price per acre of small improved farms? State what proportion has been under cultivation, how much is fenced, and the kind of buildings.

Los Angeles: from \$25 to \$30; but little of it fenced; buildings inferior; vineyards for sale within the city limits at \$2 50 per acre. Santa Clara: \$20 to \$100 per acre, according to location and amount of improvements; three-fourths of the land is fenced; buildings not very good. San Luis Obispo: no improved farms; until 1867 the lands in this county were devoted exclusively to grazing; nearly all the good land is covered by Mexican and Spanish grants. San Bernardino: \$10 to \$50; from one-half to two-thirds under cultivation; small adobe or frame houses. Tulare: about \$25; all inclosed; plain frame dwellings. Stanislaus: very poor buildings, and very little fencing. Butte: \$8 to \$12 for upland; bottom land, well protected against overflows by levees, is worth \$25; all under cultivation, and with ordinary fences and buildings. Tehama and Shasta: \$10; about one-half under cultivation and fenced; buildings poor. Siskiyou: \$10 to \$25; from one-half to two-thirds under cultivation; generally inclosed; buildings ordinary. Plumas: \$8 to \$10; one-half fenced; common wooden buildings. Sutter, Yuba, and Colusa: \$8 to \$12 for upland; \$25 for bottom land, all under cultivation; buildings of a cheap kind. Lassen: \$8 to \$10; one-half fenced; common wooden buildings. Napa: from \$25 to \$125; all cultivated and fenced, with buildings of medium quality. Sonoma: \$10 to \$50; well fenced; fair buildings. Solano and Yolo: \$40 to \$125; all under cultivation and fenced; settlers' cabins. Humboldt: \$75; about two-thirds of each farm under cultivation and fenced; buildings passably good.

What is the price per acre of unimproved land? What proportion is cleared, and how much, if any, is fenced?

Los Angeles: \$10 to \$20; no timber. Santa Clara: none for sale. San Luis Obispo: \$2 to \$15. San Bernardino: from \$1 25 to \$10; no timber. Tulare: \$3. Stanislaus: from \$5 to \$10. Butte: \$3 to \$8, according to quality. Tehama and Shasta: about \$5; none fenced. Siskiyou: \$2 50 to \$5. Plumas and Lassens: \$5; no timber. Sutter, Yuba, and Colusa: \$3 to \$8, according to quality. Solano and Yolo: \$10 to \$40; no fencing. Humboldt: \$30 to \$35.

What is the yearly rent of small improved farms? If rented on shares, what share does the owner receive? Does the latter provide stock, implements, or seeds?

Los Angeles: no small farms for rent; the rent of land is from \$5 to \$7 per acre, or one-third the product. Santa Clara: from \$5 to \$10; on shares, one-half the product. San Luis Obispo: lands can be rented

on shares at one-tenth of the product for its use. San Bernardino: owner receives one-third, unless he furnish stock, seeds, implements, &c., then one-half. Tulare, Stanislaus, and Butte: \$5, or shares as above. Shasta and Tehama: owner provides seeds and receives one-half. Siskiyou: the owner provides stock, implements, and seeds, and receives one-half. Plumas, Colusa, Sutter, Yuba, and Lassen: the same. Napa and Trinity: \$5; shares the same as above. Sonoma: on shares, one-fourth of the product. Solano and Yolo: \$10 to \$12 per acre; or shares, one-third, and one-half if owner provides. Humboldt: \$25; shares the same as above.

What are the chief articles of production, and what are the present prices of some of them?

Articles of production.	Prices.	Counties.
Wheat.....per cwt..	\$1 20	Sonoma, Yolo.
Do.....do.....	1 25	Tehama.
Do.....do.....	\$1 30 to 1 50	Stanislaus.
Do.....do.....	1 30 to 1 80	Santa Clara, Solano.
Do.....do.....	1 35	Butte, Sutter, Yuba.
Do.....do.....	1 50	Napa, Shasta, Siskiyou.
Do.....do.....	2 00	San Bernardino, Plumas.
Corn.....do.....	1 00	Los Angeles.
Do.....do.....	1 50	San Bernadino.
Oats.....do.....	1 50	Siskiyou.
Barley.....do.....	1 00	Tehama.
Do.....do.....	1 00 to 1 20	Santa Clara, Solano.
Do.....do.....	1 15	Butte, Sutter, Yuba.
Do.....do.....	1 25	Los Angeles, Shasta.
Do.....do.....	1 50	San Luis Obispo, Siskiyou, Plumas, Lassen.
Potatoes.....do.....	2 00	Tulare, Siskiyou.
Hay.....per ton..	12 00	Butte, Sutter, Yuba.
Do.....do.....	10 00 to 14 00	Solano.
Do.....do.....	15 00	Tehama.
Do.....do.....	20 00	Sonoma, Yolo.

What is the distance to a market town, a railroad station, or a steamboat landing?

Los Angeles: from 1 to 5 miles to depot; 20 to steamboat landing. Santa Clara: a railroad runs directly through the county; to San Francisco 50 miles. San Luis Obispo: to San Francisco 320 miles; to a railroad station 250 miles; tri-monthly communication by coast steamer with San Francisco. San Bernadino: 60 miles to a railroad station; 80 miles to a steamboat landing. Tulare: home market; no railroad or steamboat. Stanislaus: from 15 to 40 miles. Butte: Oroville is the shire town, and the principal market; there is now one railroad, and also a line of steamers making its terminus at Chico. Shasta: from 10 to 20 miles to market town; to steamboat landing 17 miles. Tehama: steamboats arrive twice a week from San Francisco. Siskiyou: from 5 to 40 miles. Plumas: 85 miles to large market. Colusa: the shire town is located on the Sacramento River. Sutter: Yuba City is the shire town, and the principal market; there being a railroad to the metropolis, as well as a line of steamboats daily, plying to the same point. Yuba: Marysville is the county seat and principal market; there are two lines of railroads, and a line of steamers making termini here. Amador: 45 miles to Sacramento City and Stockton. Lassen: 85 miles to a large market. Napa: railroad runs through the entire valley. Trinity: 80 miles to steamboat landing. Sonoma: from 1 to 15 miles. Solano

and Yolo: 5 to 30 miles. Humboldt: from 5 to 75 miles. Alpine: 40 to 50 miles to Virginia, and 70 miles to Reno, on the Central Pacific Railroad.

What is the general quality of land, and the kind of timber?

Los Angeles: sandy loam on the river bottoms; adobe on the plains. Santa Clara: sandy loam; redwood and oak timber. San Luis Obispo: hilly; valleys small; soil very rich black loam, well watered; timber scarce; scrub pine, white oak, willow, and cottonwood. San Bernardino: soil varied; cottonwood, sycamore, and willow in the valley; pine, oak, and cedar in the mountains. Tulare: quality of land fair; oak timber in belts along the streams. Stanislaus: sandy with some black loam; no timber except on the rivers. Butte: upland, clayish mixture; bottom lands generally a sandy loam; oak on the level land; pine on the hills and mountains. Shasta: nearly all kinds of soil; white and black oak, sugar-maple, pine, and spruce. Tehama: the general quality of the land is good; oak and pine timber. Siskiyou: generally a sandy loam; sugar maple, pitch and yellow pine, white and red fir, some oak, juniper, and cottonwood. Plumas: soil second rate quality; pine and fir. Sutter, Yuba, and Colusa: the upland is of clayish mixture; bottom land generally a sandy loam; oak on the level, pine on the hills. Lassen: first rate; pine and fir. Napa: land good; timber chiefly oak. Sonoma: varied; oak and some redwood. Solano and Yolo: limestone, sandy loam, and heavy clay; oak timber. Humboldt: good land; redwood, pine, fir, and Oregon pine.

For what kind of labor is there a demand?

Los Angeles: skilled labor in the city; common labor in the country. Santa Clara, Tulare, Amador, Trinity, and Sonoma: none at present. San Luis Obispo: common laborers and shepherds. San Bernardino: farm hands and mechanics. Stanislaus, Butte, Tehama, Plumas, Colusa, Sutter, Yuba, Lassen, Napa, and Sonoma: farm labor principally. Shasta: farm and mining labor. Siskiyou: farm labor; carpenters and men to work in steam saw-mills. Trinity: mining. Solano and Yolo: all kinds; male and female. Humboldt: loggers and saw-mill men; but the demand is not large. Alpine: wood choppers.

What mills or factories, if any, are in operation or in progress requiring skilled labor?

Los Angeles: two grist-mills; no factories. Santa Clara: two woolen-mills; one paper manufactory. San Luis Obispo, Plumas, Sutter, Lassen, Napa, Trinity, Sonoma, and Humboldt: none of any kind at present. San Bernardino: four steam saw-mills, one water-power saw-mill, and two flour-mills. Tulare: a few flour and lumber-mills. Stanislaus: woolen factory. Butte: three flour-mills and many saw-mills. Shasta: three flour-mills, three quartz-mills, and ten saw-mills. Tehama: three flour-mills and four saw-mills. Siskiyou: three steam saw-mills, several water saw-mills and flour-mills, one foundery, and one tub and pail factory. Colusa: two flour mills and several saw-mills. Yuba: four flour-mills, one woolen factory, and many saw-mills. Amador: quartz-mills and saw-mills. Solano and Yolo: five flour-mills and several manufactories of agricultural implements. Humboldt and Alpine: saw-mills.

Are there in your vicinity any railroads or other public works in progress requiring common labor? If so, how far distant?

Los Angeles: one railroad completed, another in contemplation. Santa Clara, San Luis Obispo, San Bernardino, Tulare, Butte, Shasta, Siskiyou, Plumas, Colusa, Sutter, Yuba, Amador, Lassen, Napa, Trinity, Sonoma, and Humboldt: none in progress. Stanislaus: one in the lower part of the county. Tehama: the line of the California and Oregon Rail-

road is about three miles from the town of Red Bluff. Solano and Yolo: one railroad in process of building.

Please state any advantages which your district can offer to laborers, mechanics, or small farmers. Is there much land of good quality and well watered, yet unoccupied?

Los Angeles: plenty of land unoccupied, but of poor quality and subject to drought. Santa Clara and San Luis Obispo: no special advantages. San Bernardino: a considerable quantity of public land unsurveyed, containing gold and tin mines. Tulare: plenty of land to be purchased on fair terms, say from \$2 to \$10 per acre; land in some sections requires irrigation. Stanislaus: quite a large quantity yet unoccupied. Butte, Colusa, Sutter, and Yuba: there is now and for years will be a demand for laborers, mechanics, and farmers, for the country is by no means in an advanced condition, and new developments, requiring all kinds of labor, are being made in all branches of industry; not much land of good quality unoccupied. Shasta and Tehama: there are thousands of acres of unoccupied land in this district suitable for stock-raising and fruit-growing. Siskiyou: there is some good farming land and much good grazing land in the eastern part of the county. Plumas and Lassen: considerable good land, well watered, unoccupied. Napa: laborers who are inclined to be industrious can do well; farm hands command from \$30 to \$40 per month. Trinity: nothing but mining in the placers. Sonoma, Solano, Yolo, and Humboldt: small farmers can do well. Alpine: the climate is very severe in winter, snow falls to an extraordinary depth. In summer it is delightful. At present no inducements whatever can be offered to laborers, mechanics, or small farmers. There is some very fair land, well watered, and nearly the entire county unoccupied. The timber is abundant. The mines in this county are principally silver, but as yet are undeveloped, although a large amount of labor and money has been expended in "prospecting" them.

What are the prices of ordinary farm stock, sound and in good condition?

Districts.	Counties.	Working oxen, per pair.	Working horses, each.	Working mules, each.	Milch cows, each.	Sheep, each.	Hogs.
2	Los Angeles.....	\$100	*\$40	*\$50	*\$35	\$2 to 3 50	
	Santa Clara.....	150	\$50 to 200	\$100 to 250	\$50 to 100	3 to 5 00	6c. per lb.
2	San Luis Obispo.....	Scarce	50 to 150	100 to 200	65	3 00	
2	San Bernardino.....	100	150	50 to 150	40	2 00	4c. per lb.
3	Stanislaus.....	150	50 to 125	75 to 150	60 to 75	2 50 to 4 00	5 to 10c. p. lb.
3	Tulare.....	150	100	150	50	3 00	10c. per lb.
4	Butte.....	150	200	200	45 to 60	2 50	5c. per lb.
4	Shasta.....	175	125	150	40	2 50	3c. per lb.
4	Tehama.....	175	125	150	35	2 50	
4	Siskiyou.....	\$100 to 175	75 to 225	150 to 250	40 to 60	3 to 4 00	8c. per lb.
4	Plumas.....	150	75 to 150	75 to 150	50 to 75	3 00	10c. per lb.
4	Colusa.....	150	200	200	45 to 60	2 50	5c. per lb.
4	Sutter.....	150	200	200	45 to 60	2 50	5c. per lb.
4	Sacramento.....	80 to 100	80 to 150	100 to 150	40 to 80	3 to 4 00	7c. per lb.
4	Yuba.....	150	200	200	50 to 60	2 50	5c. per lb.
4	Amador.....	150	100 to 300	125 to 400	40	3 00	9c. per lb.
4	Alpine.....	125	80	90	40	2 50	9c. per lb.
4	Lassen.....	150	75 to 150	75 to 150	50 to 75	3 00	10c. per lb.
5	Napa.....	200	100 to 200	100 to 250	50 to 60	2 50	6c. per lb.
5	Trinity.....	200	150	125	60	4 50	
5	Sonoma.....	150	100	100	50	2 75	6c. per lb.
5	Solano and Yolo.....	125	150	150	70	3 00	9c. per lb.
5	Humboldt.....	200	150 to 200	175 to 200	70	2 50	10c. per lb.
	Average.....	\$149 00	\$136 84	\$151 13	\$51 73	\$2 90	7 cents.

* Spanish stock.

[As the foregoing compilation imperfectly represents the advantages which California offers to the immigrant—returns not having been received from the whole State—the following communication from Mr. Charles S. Capp, whose official position has afforded him unusual opportunities for obtaining correct information on the subject, is appended:]

SAN FRANCISCO, *December 9, 1870.*

DEAR SIR: Your letter, accompanied by information concerning California lands, was duly received. I notice that most of the prices for farming lands quoted are those in the immediate vicinity of the county seats and oldest settled and best improved central districts. By going a little distance from the present centers of population, lands can be obtained at more moderate prices and frequently from the Government at usual rates.

When the quantity of land that is inclosed or uninclosed is considered it should be borne in mind that what is here called a "no fence law," extends over a considerable portion of the State, viz, the counties of Marin, Stanislaus, San Joaquin, Yolo, and portions of Sacramento, Santa Barbara, San Diego, Los Angeles, and Merced. (See California Statutes, 1869-70, page 410.) The principle of this law is, that a landowner is entitled to the safe enjoyment of his land without having to guard it by fences, and that the owner of live stock is bound to see that they do not trespass, and is responsible for damages if they do. Where land is cheap and timber scarce and dear, the fencing often costs more than the land, and this law was intended to facilitate settlement by poor men by obviating the necessity for this often unproductive expenditure. This law is being extended in its operations at every session of the legislature, as fast as the purely agricultural interest becomes decidedly stronger than the mere stock-raising interest. Its fairness and economy commend it. Many miles of our best lands are thus uninclosed, though in a high state of cultivation.

As to improvements upon lands, it should also be borne in mind that many improvements, such as warm barns and sheds for cattle, that are indispensable where snow-falls and severe winters prevail, and where rains during the harvest season and afterward may be expected, are here to a great extent unnecessary. This is the case in all the large valleys, and everywhere except on the northern coast and in the mountain regions. Cattle and sheep need and receive little or no shelter, but find their own living all the year round. Only those that work are housed and fed. Straw and hay are stacked in the field and cattle help themselves during the latter end of the autumn, until the first rains fall, when there is a new growth of grass, and as vegetation proceeds actively all through the winter, they find an abundance of feed.

As to buildings it should also be borne in mind that in California, except in the mountains where altitude is equivalent to a more northern latitude, the winter is a mere rainy season, with numerous intervals of fine, pleasant weather. Consequently Californians are able to and do spend a greater portion of the time in the open air than the people of almost any other State. They, therefore, until in prosperous circumstances, do not build such fine houses to keep out cold as are absolutely necessary in the Northern and Eastern States. Cheaper ones answer every purpose and afford quite as much comfort as more expensive ones. This advantage of our climate operates greatly in favor of men of limited means, as a larger proportion of their capital is available from the first for the purchase of teams, seed, agricultural implements, live-stock, and family requirements, and they are thus able to get a new piece of land into a productive condition more cheaply than is the case elsewhere.

In our large valleys and all except the highest portions of the State, snow seldom falls, or if it does seldom lies twenty-four hours at a time, and ice very seldom forms. Heavy frosts are also of rare occurrence. Consequently less fuel is necessary for comfort, and timber is not so indispensable upon a farm. Much timber is wantonly destroyed in clearing land for grain culture, even in districts where it is comparatively scarce. Wire fencing is extensively used in districts where timber is not abundant. It is not very expensive, lasts well, and its place may be supplied before it ceases to be useful by live fences or hedges, which grow finely wherever planted. The cotton-wood, willow, locust, and a variety of other trees suitable for fuel, shade and hardwood, are rapid growers where planted under favorable conditions, so that even where no timber exists the settler need not long be without it. The mountains and foot-hills which bound the valleys, usually furnish an abundant supply of fuel for the settlers at very little more than the cost of cutting and hauling, and timber is found along all the water-courses and river bottoms.

Owing to the absence of rain during harvest and for two months later, no haste is necessary in securing crops of grain when ripe, and no need of shelter for them when cut. Grain is often allowed to stand for weeks after it is ripe, until the harvester and steam-thresher can be secured to cut it. When cut it is threshed and sucked at once, and then piled up in the field without shelter in perfect security so far as the weather is concerned, and gradually hauled to the nearest railroad or steamboat landing, where

it is stored until the market price suits the farmer. Until disposed of it often serves as the basis of a loan with which the operations of the succeeding year are extended, improvements made, &c. There is usually no trouble either in disposing of the crop at San Francisco prices, less freight and commissions, or in procuring money upon it if prices at the harvest time are considered to justify the farmer in holding for a rise. The main thing is to have the hauling to the point of delivery completed before the rains make the roads heavy. For these reasons new-comers in California are able to dispense with many of the "improvements" upon farms that are absolutely necessary to success elsewhere, whether they lease or purchase lands.

As to prices, lands enhance in value the moment they are occupied. Even without occupation, what was Government land yesterday, procurable at \$1 25 per acre, is worth double that price or more the moment it passes into private hands. That is to say, this increase in value is insisted upon by the owners without much regard to difference in quality between what is taken and what is left. Settlement actually increases the value of land in any vicinity, because men usually prefer to have neighbors for themselves and families. Yet other lands a little farther off from the nearest town may be fully equal in quality, and settlement will enhance their market and quotable value in the same manner, and the development of the country subsequently by the construction of railroads, &c., may make the more distant lands the most valuable. The successful introduction of some new culture, such as the grape, the mulberry, or the commencement of a manufacture for which facilities exist, will have the same effect. And thus in California, as in other new States, the men who will accomplish most and succeed best are those whose intelligence enables them to discover for themselves the peculiar advantages of a district, which escape the attention of others, and who have the enterprise to secure and develop such locations. Any ordinary farmer can see that a piece of land, the soil of which is deep and rich, and which is level, will make a farm for wheat, oats, barley, or common crops. But the foot-hill region, where the land is rolling and sometimes steep, is found to be capable of producing a variety of fruits and other products that yield a far larger and more certain return than any land used merely for grain-raising. I only repeat the opinion of many of the most intelligent men in the State when I say that we may expect that before many years the foot-hill region of the Sierra Nevada, extending from the plains of the large valleys across the gold-bearing belt and up to the high pine-covered districts, where the climate becomes severe, will be occupied by a dense and prosperous population, and prove quite as productive as the level lands which now contain the bulk of our agricultural population. Already many of the finest orchards and vineyards are located in this region. The wines produced there are of superior quality, and the fruits unsurpassed. The silk culture has been successfully carried on, and every year demonstrates more fully the varied capacity and great value of these lands.

Cattle-raisers frequently depreciate the value of the Government lands in their vicinity in order to discourage others from settling near them, so that their stock may enjoy free range over the vacant lands around them. Intelligent men are not thus deceived, but able to judge for themselves and form their own opinions. Cultivation frequently changes entirely the appearance of a soil. While cultivated land is covered with green and luxuriant vegetation, the same soil outside of the inclosure, which has not been disturbed, presents a dry and sterile appearance which is very uninviting. What has been done by one settler may be done by others. The dry appearance of our hills and valleys in the fall is discouraging to new comers from States where the rain-fall is greater and distributed more evenly through the year. But if water for drinking is supplied to cattle in such localities they are found to be fat and thriving, and the dry grass, when examined, is found to be a perfectly cured hay, retaining all its natural strength and nourishment, and often rich in seed, and it continues in this condition until rain falls and washes out of it its nutritive properties and causes it to rot. In all our large valleys water is found close to the surface nearly everywhere, and is readily procured by wells, and the regular winds afford the power necessary for pumping all that is required for household purposes, watering stock, and garden irrigation. Artesian wells costing about \$500 each are also dug without difficulty in many of the valleys that are destitute of running streams in the fall, and one of these will usually supply all the water that is required upon a farm, the flow being constant and plentiful without pumping-machinery. Everywhere in the foot-hill region and on the plains below, facilities exist for bringing in water for irrigation from the never-failing streams supplied by the mountain snows. The ditches originally built to supply the water for mining operations are now used to a considerable extent for the purpose of irrigation, and will be carried lower down as the demand increases. But every year's experience proves that though irrigation for some purposes will greatly increase the productive capacity of land, thorough cultivation often renders it unnecessary; and again, for many crops for which it was formerly supposed beneficial it is in fact unnecessary if the seed is sowed in time to obtain the full benefit of all the natural rain-fall. Grapes and other fruits raised *without irrigation* are superior in flavor to those supplied artificially with water. Nevertheless, an abundance of opportunities exist for the employment of capital in

the diversion of water from its deep natural channels to the surface of districts not well supplied, and its use in irrigation and for manufacturing purposes. The foot-hill region, which is peculiarly adapted to fruit-growing, vineyards, &c., comprises portions of the counties of Shasta, Plumas, Butte, Sierra, Yuba, Nevada, Placer, El Dorado, Sacramento, Amador, Calaveras, Tuolumne, Merced, Mariposa, Fresno, Tulare, and Kern. Lands of similar quality are found in some of the other counties. Good wagon-roads extend through most of this region to the numerous mining towns in the higher districts, and a system of narrow-gauge railroads is now being discussed which will probably extend through these districts, and thus facilitate the transport of agricultural products, as well as the rich ores which the mines afford, and the valuable timber of the high Sierras.

Improved farms are not rented to the same extent in California as elsewhere. Most of the settlers occupy them as their homesteads, and have no other lands. Comparatively few of the large land-holders lease their land for farming, and few or none improve them expressly for the occupation of tenants. Where land is leased, the farming is mostly mere grain and stock raising, requiring few or no expensive improvements by the tenant, or for his accommodation. Again, where private lands are yet so cheap and Government lands are attainable at Government prices, and the railroad system in course of construction promises to render them, in a few years, as accessible and valuable as the central lands that are now high, the necessity for renting land and the inducements to do so are less than elsewhere. The great majority of new comers soon see this, and prefer to purchase land of their own. Leases, however, are frequently made with the privilege of purchase, at a fixed price not greatly in advance of existing rates. This privilege is usually availed of, as the tenant sees that his own settlement enhances the value, and prefers to enjoy the full benefit of his own labor. These leases are sometimes advisable where speculation, in view of contemplated railroads and similar improvements, has not already too greatly enhanced their market value. The rent of land usually represents about ten per cent. of the estimated value of the land; thus in Monterey good wheat land that sells at from \$25 to \$35 per acre rents at \$2 50 to \$3 50 per annum.

Mexican grants cover a large part of the best lands in the southern portion of the State. So long as the titles to these grants are in dispute their boundaries remain undefined. Consequently settlers are often afraid to take up land in their vicinity, though they believe it to belong to the Government because it is unsurveyed, and for fear that the grant when located by surveyors may be "floated" over their improvements. Recent legislation by Congress was intended to compel the immediate survey of such unlocated grants. Certain defects have rendered it partially inoperative. Amendments will probably be made to remedy these defects, and then the segregation and settlement of the adjoining Government lands will proceed safely and rapidly. The final confirmation and survey of these grants is usually immediately followed by their subdivision. This process soon makes openings for agriculturists; the raising of stock becomes unprofitable as soon as the range is restricted, and soon the agricultural element prevails over the stock-raising. The majority of the Spanish and Mexican grants are already confirmed or rejected. When finally confirmed and located, the titles are perfect and desirable. Fine openings for capital exist in the purchase of these large ranches from the owners and their sale in subdivisions to farmers and smaller stock-raisers.

In conclusion, California at the present time does not present any brilliant inducements to the immigration of men having no capital but their labor, and who are content to remain mere laborers. Industrious, enterprising men, who understand farming, or almost any other useful occupation or mechanical trade, usually find employment without much difficulty, at higher rates than prevail elsewhere, and in a few years lay up capital sufficient to commence business upon a small scale on their own account.

Women, for domestic service, particularly in the country, are in unlimited demand at high wages, from \$25 to \$40 per month, according to capacity, and they are always well and kindly treated, and usually marry in a very short time, greatly to the discontent of their employers. But for the practical farmer, possessed of means sufficient to enable him to purchase or lease land, improved or unimproved, or to locate Government land under the homestead or preemption law and commence farming on a small scale, no State or Territory offers superior inducements. He can commence operations perfectly assured that a few years spent as industriously as is necessary in agriculture elsewhere, will here surround him with all the necessaries and many of the luxuries of life, make him secure from want, and the owner of a farm, orchard, and garden that will afford himself and family a competency, and a comfortable inheritance to his heirs. This is plain when we consider the great variety of products and fruits that can be successfully and profitably raised here, that are either precarious and therefore unprofitable or cannot be raised at all where the climate is more severe. Most of these new cultures are no longer experimental, but are firmly established as profitable and certain. Orchards, vineyards, mulberry plantations, and cocoeneries are everywhere being planted, with a certainty that they will thrive and yield a handsome profit. re-

warding the husbandman abundantly for his labor. The success attendant upon all these experiments upon a large or a small scale has long since been known to all intelligent men. California is resorted to by agents of French and Italian silk manufacturers to purchase at high prices our silk-worm eggs, (that are healthy and free from the diseases that have threatened to impair this important industry in Europe,) as well as all the raw silk we may produce. Our wines and brandies are already commencing to rank with the best produced abroad. Our fruits, both on account of their superior quality and the early date at which they mature, are in request in eastern markets even at the high prices which the expensive transportation necessitates. Our wheat is superior in quality and in its capacity to bear transportation by sea or land, and storage for an indefinite period without damage, to that which is raised in almost any other country, and rules accordingly in the market, and can be raised at a cost which enables it to bear the expense of transportation to the most distant ports.

All the productions of the temperate zone, nearly all of the semi-tropical fruits and plants that elsewhere are mere hot-house exotics, here thrive and yield abundantly. Even the man of moderate means can therefore surround himself and family with luxuries and ornamental as well as useful plants, trees, and shrubbery that elsewhere entail heavy expense upon their owners and stamp them as men of wealth. The cottages of men of very moderate means in our smaller towns, not only in the valleys, but in the mining regions also, are often surrounded by a patch of garden and orchard, in which will be found not only the ordinary, familiar plants of an old Eastern homestead, but the more delicate geraniums, oleanders, fuschias, heliotropes, verbenas, lilies, bulbous plants, cactus, roses, and a hundred others growing, budding, and blooming in the open air all the year round. In addition to all the ordinary fruits, such as apples, peaches, pears, quinces, plums, and small fruits and berries, may also be found the olive, orange, lime, citron, figs of several kinds, pomegranate, English walnut, mulberry, filbert, tobacco, cotton, sorghum, ramie; and if the owner is disposed to experiment the list might be extended indefinitely. Thus not only does California offer to the agriculturist a profitable, but also a pleasant and attractive home, in which a family may be reared surrounded by all the influences which will render them contented, healthy, intelligent and patriotic.

The California Immigrant Union, of San Francisco, is an association formed to promote emigration to California. Its officers have published several pamphlets and other documents, containing reliable information concerning the resources and attractions of the State, which are supplied gratuitously to all who apply in person or by letter, and have been placed in many of the Eastern and European libraries and reading-rooms. They also endeavor to facilitate the travel and settlement of new comers, and do not confine their operations to any particular section of their State. No charge is made for any services rendered, and those desiring information concerning California may address the company by letter or otherwise.

CHARLES S. CAPP,
Manager California Immigrant Union.

Hon. E. YOUNG,
Chief of Bureau of Statistics, Washington, D. C.

[The following communications are deemed of sufficient interest to insert entire.]

The lands within this division—Amador County—have never been brought into market by the Government and only a small portion surveyed into sections, and the only title cultivators have to the lands is by an act of the State legislature, passed in 1852, under which any citizen selecting and recording 160 acres of the public lands and actually residing thereon shall be protected in his possession. Under this act settlers have gone upon the public lands in the mining counties, and have made such improvements as now exist, this being the tenure by which lands are held in this district. There is, consequently, no fixed price per acre; but these "possessory" claims can be purchased at this time at a very low figure, owing to the fact that the tide of immigration flowing from the East mainly seeks the valley and coast counties. No fixed value attaches to any agricultural improvements in this county, as a general rule, outside of a certain "grant" in the western part of the county, hereinafter referred to.

The chief products of the district, outside of gold and lumber, are vegetables for table use in abundance, grapes, and fruits of every variety known to viticulture and to horticulture; and these branches of production, when they shall become properly understood, and markets are opened, will afford profitable employment for large populations. This county, from its western boundary to a point 30 miles east and 20 miles north and south, is most admirably adapted to the cultivation of the grape. I might safely say that almost every foot of the soil covering the above-named area is capable of sustaining a vine, and as soon as markets shall be established, every vine can be made to produce a profit on the labor bestowed upon its cultivation.

When the lands of this district and other districts similarly situated shall be brought

into market (if kept out of the hands of speculators) and settled up by a class understanding the cultivation of the vine, it will not require a great lapse of time ere it will become densely populated with thriving communities.

Every known variety of grapes can be produced in abundance, and the fruit in the mountain districts is singularly free from the disease peculiar to the vine in other countries.

Had we markets for grapes at the prices paid in the valleys for an article inferior to our mountain production, no better field of profitable labor could be found for men of limited capital and industrious habits than the foot-hills of California. A vineyard of 20 acres well cultivated, with a fair market, would not only be sufficient to support a large-size family, but by economy and industry the cultivator could lay by annually a surplus. But the present objections to a settlement and cultivation of the mountain districts are, *first*, a want of title to the lands, and *second*, a market for mountain produce. The wisdom of the Government will remedy the one, and time and the intrinsic value of the products will bring the other. Under our present mode of settlement, immigrants to the mountain districts, if citizens, under the possessory act referred to, can settle upon and occupy any 160 acres of unoccupied land and will be protected in their settlement by the provisions of the act unless the General Government should assert its superior right.

But it is not the peculiar adaptation of the mountain districts to the production of the grape, and, as a sequence, wines and brandies, that alone constitutes their value. No part of the United States produces finer fruit of every variety peculiar to northern or temperate zones; yet for the want of a market this branch of industry, like all others in mountain agriculture, has not been developed. Grapes, in this district, can be successfully grown by cultivation alone without the aid of artificial irrigation, and experience has proven that cultivation produces a superior grape both for table use and for the finer variety of wines, than are those produced by artificial irrigation.

The foot-hills of California present a wide field to-day for profitable industry if intelligently bestowed; and the cultivation of the vine, the manufacture of wines, brandies, and other liquors, besides her fruits of every variety, offer to the industrious and enterprising a field in which comfort and comparative wealth will be the reward of intelligent labor.

Again, above the grape lands begins a section of country well adapted to the production of northern fruits and vegetables, and as far as actual experience has gone, equally as well adapted to the hardier cereals; still so little has been done to bring out the productive capacity of this region, that its true value will remain undeveloped until after the milder regions of the foot-hills shall become over-populated, and the current of immigration driven higher up the mountains; still, at some future day, this "upper region" will be more sought after than other localities on account of its fine timber, pure cold water, its atmosphere devoid of all miasmas, its health and its agricultural capacities. Again, above this region lies a vast area of mountain lands covered with a heavy growth of as fine pine, spruce, and laurel timber as can be found in the world, but too elevated for agriculture. Independent of its valuable timber, it is likewise valuable as summer and autumn grazing lands. Within this portion of the mountains vast herds of cattle and flocks of sheep can be pastured at the bare cost of herding, and as this entire region is unfit for cultivation it will remain perhaps for all time the pasture grounds for the cultivators and residents along the foot-hills below.

The Arroyo Seco grant herein referred to contained about 49,000 acres, of which about 30,000 acres were in this county. They have sold some 10,000 acres in this county; and about 10,000 acres is good farming land and held at an average of \$30 per acre.

In renting their land the owners receive one-third, the tenants furnishing their own stock, implements, seeds, &c.

During the fall of 1869 and summer of 1870 a portion of the public land in the middle part of Amador County has been surveyed and is open to entry under the "preemption" and "homestead" laws by actual settlers thereon.

J. A. ROBINSON,
Assistant Assessor 2d Division 4th District California.

JACKSON, January 4, 1871.

SANTA BARBARA, CALIFORNIA, January 18, 1871.

DEAR SIR: Santa Barbara, on the Pacific coast, near the group of islands of the same name, is well protected from the northern winds of winter by a range of mountains three miles back from the sea. The county of the same name is 120 miles long and 60 wide, its surface covered with mountains and lovely valleys, the bottom lands of which are more fertile than those of the Wabash or Mississippi. These valleys are mostly private property, held under Mexican grants, called ranchos, containing from one to eleven square leagues, formerly sold at nominal prices, and now in the market at from two to ten dollars per acre. When subdivided, sold, and settled by enterprising people, these same acres will sell at from \$25 to \$100; and, when covered with fruit trees and vines, up to \$1,000, and will pay good interest on a larger sum.

So far as we know, these valleys are the most healthful and genial in the world. The mercury generally ranges from 60° to 80° throughout the year; frost is seldom seen, and winter is our most charming season.

The rain-fall is said to average about 14 inches per annum, just enough, and not a drop squandered in leaching out the soluble parts of the soil; and this is one of the reasons why our vegetation grows so luxuriantly. Irrigation for agricultural purposes is only resorted to where it is desired to raise crops out of season.

The soil is a mixture of sand, clay, and vegetable mold, works easily in the proper time, yields bountifully, and, when deeply plowed and properly pulverized, receives, retains, and raises moisture by capillary attraction to such an extent that it is preferable to plant all hoed crops after the last rain, to prevent the germination of weeds; after which they require little or no attention until harvest time. From 50 to 100 bushels of barley and corn are a common yield, and other crops in proportion.

Our produce can be shipped on the ocean without the aid or cost of conveyance by railroads, and at almost nominal expense can be offered in the best seaport markets of the world. Our beef is slaughtered from the fields at all seasons, and stock-raisers never provide a ton of hay except for their work-stock and saddle-horses.

Earthquakes, few and far between, although terrific, are probably not more than one-tenth as destructive as lightning in the East. Lightning-rods and mad-stones are never seen here. The water is excellent; change of temperature slow; evaporation slight, and vicinity remarkably healthy. The people are mostly from the eastern States, are liberal, enterprising, educated, and refined.

This country will eventually be noted for the production of the orange, lemon, olive, almond, English walnut, prune, peach, plum, fig, and grape; five acres of which will be a fortune for a poor man. From the following facts those who are interested can make their own calculations. Judge F. has an olive tree which usually produces twenty dollars worth of fruit per annum. They commence bearing at three years of age, and at six should yield well. Mr. T. sold more than thirty dollars' worth of almonds from one tree in 1868. Orange trees yield from \$20 to \$30 worth of fruit per annum, and lemons do about as well. Grapes are at home here, and we boast of the biggest grape-vine in the world, a foot in diameter, covering an arbor sixty by seventy-five feet, and yielding from four to six tons annually.

From one to two hundred trees of the above varieties can be set to the acre. The English walnut, like the black walnut, is a much larger tree, and is said to yield, when in full bearing, from \$50 to \$100 worth of fruit.

Our climate and soil are such that labor will make an Eden of our valley.

Truly yours,

O. L. ABBOTT.

Hon. EDWARD YOUNG,
Chief of Bureau of Statistics.

OREGON.

Area, 60,975,360 acres. Population in 1870, 90,933.

Can land be purchased or rented in your district suitable for small farms on favorable terms?

Wasco, Douglas, Lane, Multnomah, Washington, Marion, and Clatsop: it can.

What is the price per acre of small improved farms? State what proportion has been under cultivation, how much is fenced, and the kind of buildings.

Wasco: thousands of acres of good land, unoccupied, at Government price; improved farms, none for sale. Douglas: from \$5 to \$10 per acre; all under fence; generally very poor buildings. Lane: \$10 to \$15; one-fourth cultivated; all fenced; ordinary buildings. Multnomah: \$10 to \$20; one-fourth under cultivation; all fenced; ordinary farm buildings. Washington: \$10 to \$20; less than one-fourth under cultivation; about one-half fenced; buildings moderately good. Marion: \$25; all under fence; good buildings. Clatsop: none for sale.

What is the price per acre of unimproved land, what proportion is cleared, and how much, if any, is fenced?

Wasco: settlements sparse; land rolling and prairie; no stated price.

Douglas: \$2 to \$3 per acre; nearly all cleared; none fenced. Lane: \$2 to \$5; none fenced; none cleared. Multnomah: \$4; none cleared; none fenced. Washington: \$2 to \$5. Marion: \$1 25 to \$5; about one-fourth cleared; none fenced. Clatsop: \$3 to \$5; none cleared; none fenced.

What is the yearly rent of small improved farms? If rented on shares, what share does the owner receive? Does the latter provide stock, implements, or seeds?

Wasco: no cash rents; the general rule is to furnish seeds, team, implements, &c., and give one-half the product. Douglas, Lane, Washington, and Clatsop: the same. Multnomah: \$7 per acre; Marion: \$3; shares, one-third to owner, furnishing nothing; or two-thirds if he furnish.

What are the chief articles of production, and what are the present prices of two or three of them?

Articles of production.	Prices.	Counties.
Wheat..... per bushel..	\$0 60 to \$1 00	Washington, Lane.
Do..... do.....	70 to 1 10	Marion.
Do..... do.....	75 to 1 00	Douglas.
Do..... do.....	1 00	Wasco.
Oats..... do.....	37½	Lane.
Do..... do.....	40	Washington.
Do..... do.....	50	Douglas, Marion, Clatsop.
Potatoes..... do.....	40	Multnomah.
Do..... do.....	50	Marion.
Do..... do.....	60	Clatsop.
Hay..... per ton.....	12 00	Lane, Multnomah.
Do..... do.....	15 00	Clatsop.
Do..... do.....	20 00	Marion.

What is the distance to a market town, a railroad station, or a steamboat landing?

Wasco: various distances, from the jump of a squirrel to 350 miles; railroads, none. Douglas: 80 miles to tide-water of the Pacific Ocean. Lane: steamboat landing in the county. Multnomah: from 1 to 10 miles. Washington: 3 miles from this place. Marion and Clatsop: greatest distance 20 miles.

What is the general quality of land and the kind of timber?

Wasco: alluvial soil; timber—fir, pine, cedar, oak, ash, and soft maple. Douglas: black sandy loam; oak, maple, ash, alder, myrtle, laurel, fir, pine, hemlock, yew, and cedar. Lane: land good; oak, ash, &c. Multnomah: clayey loam, best quality, very productive; fir and ash timber. Washington: excellent soil; oak ash and pine timber. Marion: good; fir, oak, and ash. Clatsop: good land; hemlock and pine on upland, maple, &c., on bottom land; very rich soil.

For what kind of labor is there a demand?

Wasco: no particular kind over another; the demand for labor, at remunerative prices, is good. Douglas: all kinds; mechanics, farmers, loggers, mill-tenders, coal-miners, and gold-miners. Washington, Marion, and Lane: all kinds. Multnomah: farm and mechanical labor; but particularly female house-help, which is very scarce. Clatsop: school-teachers, fishermen, sailors, carpenters, coopers, sawyers, lumbermen, tinsmiths, and female servants.

What mills or factories, if any, are in operation or in progress requiring skilled labor?

Wasco: one woolen-mill, one grist-mill, and several saw-mills. Doug-

las: one woolen-mill and seven saw-mills. Multnomah: iron foundries and machine-shops, flour-mills, and barrel factories. Washington: grist and saw mills. Marion: three woolen-mills. Clatsop: saw-mills—steam and water power, fish-canning establishments, tinsmiths' shops, &c.

Are there in your vicinity any railroads or other public works in progress requiring common labor? If so, how far distant?

Wasco: one railroad and branch mint in course of construction. Douglas: wagon-road to the coast, 60 miles in length, to be completed this year. Multnomah and Lane: railroad in progress. Washington and Marion: yes; Oregon Central Railroad. Clatsop: United States custom-house is being built of cut stone—just commenced—will be two or three years in building.

Please state any advantages which your district can offer to laborers, mechanics, or small farmers. Is there much land, of good quality and well watered, yet unoccupied?

Wasco: we want an industrious population, coming from the older States, who are not afraid to take hold of the plow or drive a team. Douglas and Lane: there is a great deal of land unoccupied and of good quality, and a demand for laborers of steady habits, honest and industrious. Multnomah: nearly all classes of mechanics and laborers will readily find employment here for about eight months in the year; a large quantity of good land, well watered, yet unoccupied. Clatsop: the best and largest body of Government land in this State is in this county; land enough for 1,000 farms, in one body, 30 miles south from Astoria; good market; good prices; railroad soon to be built; there are about 600 men engaged here in salmon-fishing and 200 in lumbering; wood-choppers are in demand.

What are the prices of ordinary farm stock, sound and in good condition?

County.	Working oxen, per pair.	Working horses, each.	Working mules, each.	Milch cows, each.	Sheep, each.	Hogs.
Wasco	\$80 to 150	\$75 to 200	\$100 to 200	\$30 to 50	\$3 to 4 00	6c. per lb.
Douglas	100	125	125	25	2 00	4c. per lb.
Lane	100	100	125	30	1 50	2c. per lb.
Multnomah	80	100	150	40	1 75	5c. per lb.
Washington	125	100	100	40	2 50	5c. per lb.
Marion	100 to 125	75 to 150	100 to 150	35 to 50	2 00	5 to 6c. p. lb.
Clatsop	75 to 150	50 to 150	50 to 100	40	2 to 5 00	4 to 6c. p. lb.
Average	\$107 85	\$117 85	\$121 42	\$36 71	\$2 39	4½ cents.

[The following facts concerning Oregon, from a statement prepared by Mr. John W. Drake, secretary of the Board of Statistics and Immigration of Portland, Oregon, are indorsed by Hon. H. W. Corbett, United States Senator from that State, and inserted at his request:]

Of the entire area of the State, about 25,000,000 acres are adapted to agriculture, and about the same quantity to grazing purposes, the remainder being mountain land, valuable only for its immense forests of timber. Of the agricultural and grazing lands, not over 6 per cent. has passed from the Government into the hands of private parties, and the quantity under cultivation would not exceed 2 per cent.

The Cascade range of mountains, crossing the State from north to south, divides it into two main divisions—the eastern and western, each division having its own distinct peculiarities of climate, soil, and topography. In the western division, lying at the base of, and in a general parallel direction with, the Cascade range, are three large fertile valleys, separated from each other and from the sea-coast by low ranges of mount-

ains. Taken together these valleys form a continuous chain of settlements from Northern California to the Columbia River, the northern boundary of Oregon. The Willamette Valley, the largest of the three, occupies the northern part of the western division, with its waters flowing into the Columbia, and navigable the entire length of the valley. The Rogue River Valley lies in the southern part, and the Umpqua Valley between the two. The waters of the Rogue River and the Umpqua break through the Coast range, discharging into the ocean. Rogue River is not navigable, but the Umpqua is navigable, for light-draught vessels, to Scottsburg, 25 miles from its mouth. The valley of the Willamette, containing the oldest settlements in Oregon, is 125 miles long, has a breadth of about 40 miles; and, in view of its advantages of soil, climate, and market facilities, is considered to be the finest and best agricultural region of the Pacific slope. The area of its arable lands is sufficient for the support of a million of people. The river flowing through its center, with its innumerable tributaries and rivulets, furnish the valley with a constant supply of the best mountain water for agricultural purposes, and with motive power for the use of mills. The Umpqua and Rogue River Valleys are equally well watered, but are much smaller and of more irregular surface.

Western Oregon, throughout its mountain ranges and along the coast, is heavily timbered, while the valleys consist of alternate stretches of timber and prairie. Cedar, pine, fir, hemlock, spruce, oak, ash, alder, soft maple, and balm, or cottonwood, are the principal varieties of timber adapted to the farmer's use.

Eastern Oregon is on an elevated plateau, intersected with numerous water-courses flowing in a general northerly direction into the Columbia.

* * * * *

SOIL AND PRODUCTS.—Wheat and oats are the leading grain crops of Western Oregon; the climate and soil seem to have a special adaptation to their growth, and to the maturity and perfection of the grain. Corn and barley are cultivated to some extent, and good crops of both have been raised in the valleys; but with exceptions in favor of a few localities, they are not regarded as being adapted to the climate. In Rogue River Valley, however, barley makes a good crop, yielding 30 to 50 bushels per acre, and corn is grown every year in some parts of the Willamette and Umpqua Valleys. In the Willamette Valley rye and buckwheat are raised to a small extent. The yield per acre is from 25 to 30 bushels for rye, and 40 to 50 for buckwheat.

Wheat is a sure crop anywhere in Western Oregon. It is free from the ravages of insects, rust, blight, and other deleterious influences common to some sections of the United States. Several varieties of both winter and spring wheat are cultivated, and do well. Winter wheat is put in the ground in October or November, and spring wheat from February to May, according to season, condition of ground, &c. The yield per acre, ordinarily, ranges from 20 to 40 bushels, many farmers claiming that with reasonably good cultivation an average of 30 bushels, one year with another, can be depended on. In the history of the white settlement of Western Oregon—a period of about thirty years—there has never been a failure of the wheat crop. The quality of the grain is superior, attaining to more than the ordinary weight per bushel, and making a quality of flour that commands the highest prices in San Francisco and New York. A cargo of wheat shipped in the spring of 1869 by a business firm of Portland to Liverpool, entered into competition with wheat from all parts of the world, and brought the highest price current at the time.

Oats are the principal grain raised for feed, particularly in the Umpqua and Willamette Valleys. Always a sure crop, the yield is from 50 to 100 bushels per acre. A large quantity is shipped every year to San Francisco, which sells from 10 to 15 cents per 100 pound higher than those produced in California. * * * *

In the Willamette Valley the cultivation of flax is beginning to engage the attention of farmers. The seed used is the Bombay variety, yielding a large crop of seed, but producing a fiber small in quantity and of inferior quality. The yield ranges from 25 to 30 bushels per acre. The California oil-mills have contracted this year for the product of six thousand acres in Linn County, the seed to be delivered at 2½ cents per pound; while at the oil-mills at Salem, in this State, the same price is to be paid for the product of three thousand acres.

Fruit is raised with unusual success. The trees come into full bearing in three years from transplanting, and with very little care or cultivation yield heavy crops of fruit of the finest quality. Apples, pears, plums, quinces, cherries, currants, and all descriptions of small fruits and berries have a special adaptation to the moist climate and sea air of Western Oregon. Peaches, apricots, grapes, and that class of fruits requiring a hot, dry climate, do not succeed so well in the northern part of the Willamette Valley and along the coast; but in Rogue River Valley, and the hilly country west of it, where the climate is hotter and dryer, more nearly approaching that of California, that class of fruit is successfully cultivated. Thus far fruit trees in Oregon have been entirely exempt from the diseases incident to their cultivation in the majority of the older States.

Among the grasses, timothy, blue grass, and clover are the kinds mostly cultivated; the former to a large extent as a hay crop. On the swales and ash bottoms it yields two to three tons per acre, very often without any cultivation, except to sow the seed after the ground has been cleared of brush and burnt over. The abundant growth of wild grass renders unnecessary any extensive cultivation of grass for pasturing purposes.

Garden vegetables of all kinds and the various root crops are cultivated very successfully in all parts, particularly so on the timber lands and creek bottoms, where the yield of these products is very large. Except in a few instances for gardening purposes, irrigation of the soil is not practiced in Western Oregon. The abundant rains of spring and early summer together with the fertility of the soil render it unnecessary.

Eastern Oregon consists of high table land and rolling prairies, with a number of valleys along its water courses, of considerable extent. Taken as a whole, it is especially adapted to grazing purposes, although its valleys contain farming lands equal in productiveness to those of any country; and in many places the high prairies have produced excellent crops of grain. North of the Blue Mountains, or what is known as the great plain of the Columbia, the soil of the high lands is a sandy loam, producing in its natural state a heavy growth of wild bunch-grass of the most nutritious quality. In the central and southern portions of this division of the State, the high lands are rugged and broken, the surface of the country, sometimes for miles in extent, being covered with broken trap-rock; still, with the exception of a few barren spots, the growth of bunch-grass is undiminished, either in quantity or quality. It springs up fresh and green in the first warm days of early spring, and in a few weeks stock begin to fatten on it. By burning over the ground a full growth is produced, which by the middle of October makes good *grazing*, and lasts through the short winter of that section of the

country. It was the custom of the Indians of Oregon in former years to raise large herds of horses without providing for them any feed for the winter. The settlers and stock-raisers there now raise and fatten every year thousands of cattle, grazing them the year round. Fat beef-cattle, wintered and fattened on the "range," have been shipped down to Columbia, and thence to Victoria, on Vancouver's Island, to market, as early in the spring as the middle of March.

The valleys of Eastern Oregon have a rich soil of black loam, producing wheat, oats, barley, corn, vegetables, and fruits. Wheat succeeds equally as well as in Western Oregon, while barley does much better, often yielding as high as sixty to eighty bushels per acre. Corn makes a good crop in many of the valleys, the warm, dry summer weather of this region being adapted to its growth and maturity. Some of the tender fruits and vegetables, as peaches, grapes, melons, tomatoes, and sweet-potatoes, are being cultivated with good success. Tobacco has succeeded well in several instances. In a general sense, the range of farm products varies very little from that of Western Oregon, making due allowance for the different adaptabilities of a dry climate. Irrigation is resorted to occasionally for the better production of garden vegetables and fruits; but thus far it has not been found necessary in the cultivation of any kind of grain crops. It is claimed by the people of Eastern Oregon that for productiveness its valleys cannot be excelled on the Pacific slope. The absence of timber in the valleys is, of course, a disadvantage, but the neighboring mountains afford an inexhaustible supply. Water of good quality is plentiful in all the valleys, but the number of springs and running brooks is much less than in Western Oregon.

CLIMATE.—The various influences of mountain ranges, extended plains, contiguity to the sea, the prevailing winds, and other causes, operate to make a climate as varied as are the peculiarities of its numerous localities. Latitude on the northwest coast of America is no index to the character of the climate. Astoria, at the mouth of the Columbia River, situated on nearly the same degree of latitude as Quebec, has a summer temperature 8° cooler, and a winter temperature 30° warmer than that place. It is only in the high altitudes of the mountain ranges that deep snows and harsh winters have any existence in Oregon.

The first thing that impresses a stranger in passing from Western into Eastern Oregon is the very decided change noticeable everywhere in the atmosphere, vegetation, and general aspect of the country. This is due chiefly to the difference in the climate of the two sections. Western Oregon has a wet climate, while the eastern part has a dry one.

The winter of Eastern Oregon, though of short duration, generally brings with it several inches of snow on the table lands and in the valleys. The weather is usually dry, but quite cold. Snow remains from three to six weeks, in the months of December and January, some seasons; in others only a few days. The spring begins in February and lasts to the end of May, with warm, pleasant weather, and rain sufficient for vegetation. The summers are hot and dry, but not sultry or oppressive. It is very seldom that rain falls in summer or early fall; still the freshness of the mountain air renders the days pleasant and the nights cool and refreshing. The range of the thermometer is rather above the summer temperature of Western Oregon, sometimes reaching to 100°, but only at rare intervals. Ordinarily the thermometer indicates 90° as about the highest summer temperature, and 10° as the lowest for winter, although these limits may not mark the extremes in

the case of an uncommonly hard winter or warm summer, occurring once in from five to eight years.

The amount of rain-fall in Western Oregon is regarded by some as an objection to the climate; but, though large, it has been generally over-rated. Western Oregon has strictly but two seasons, the wet and dry. An ordinary rainy season begins early in November, and continues to the 1st of April, usually, with intermissions of good weather in January and February of a few days' or a few weeks' duration. These intervals are generally accompanied by a few inches of snow, raw, cold weather, and sharp frosts, constituting the only approach to actual winter to which the country is subject. From April to the end of June the weather is usually warm, pleasant, and showery. The dry season proper commences about the 1st of July and continues to the end of October, interrupted by a week's rainy weather in September. The prevailing wind is from the northwest, a sea breeze that keeps the temperature down. The nights are cool and refreshing to men who do outdoor work, although the effect is not beneficial so far as corn-raising is concerned. The extremes of heat and cold in Western Oregon may be put at 14° for the lowest and 82° as the highest range of the thermometer, although a few instances have occurred in which these limits were passed.

Although a rainy country, Oregon is not subject to high tempests, terrific hailstorms, earthquakes, or other like phenomena, so common and destructive in some States. Observations made by Government officers show that in twenty-one years Oregon had only three winds moving at the rate of 45 miles an hour, with a force of 10 pounds to the square foot. * * * * *

MARKET FACILITIES.—The Columbia River forms the northern boundary of Oregon, and is navigable to the Willamette, 100 miles from the sea, at all seasons of the year, for sea-going vessels. Above the Willamette it is navigable by regularly established lines of river steamers to Wallula, a distance of 240 miles, with two interruptions, one of 6 miles at the Cascades, and one of 14 miles at the Dalles, where portages are made by means of railroads forming connections with the boats. Above Wallula the Columbia and one of its tributaries, the Snake River, is navigated to Lewiston during periods of high water—a point in Idaho Territory at the base of the Bitter Root Mountains, and over 400 miles from the ocean.

The Willamette River is navigable to Portland, 12 miles from its mouth, for ocean steamers and sea-going vessels; and above Portland for river steamers as high as Harrisburg at all seasons, and during high water as far as Eugene City, a distance of 200 miles from Portland by the course of the river. The Yam Hill and Tualatin Rivers, tributary to the Willamette, flowing from the west, are navigable during periods of high water to the interior of large agricultural districts situated in Yam Hill and Washington Counties.

The business of that part of Oregon drained by these waters employs about thirty river steamboats. All points of the Columbia, from the Dalles down, and on the Willamette, from Salem down, are in daily communication with Portland. San Francisco is the principal market for the products of the Willamette Valley, although a large trade exists with British Columbia and the lumbering districts of Puget Sound, and cargoes of wheat, flour, and other Oregon products are often shipped to the Sandwich Islands, China, Australia, South America, New York, and Liverpool, direct from Portland. Farmers, as a rule, dispose of their crops to the mills located in their own neighborhoods, or to dealers in Portland, who ship to foreign markets on their own account.

In Eastern Oregon the farmers have a home market in their own mining camps and new settlements and those of the Territories of Idaho and Montana. Consequently, prices rule higher than in Western Oregon, except in live stock, in which there is very little, if any, difference. Live stock finds a market not only in the mining districts, but in the neighboring States and Territories, and in British Columbia.

PRICE OF FARMING LANDS.—In Western Oregon farms are of large size—generally 640 acres, often twice that size—a natural result of the policy adopted by the General Government toward the early settlers. The settlements of the Willamette Valley cover an area about equal to the State of Connecticut, but its population is only about 75,000 or 80,000. As a matter of course, only a small proportion of the land is under cultivation. Land is cheap, because there is so much of it in proportion to population.

In Eastern Oregon the amount of Government land still vacant is very large. The section of country known as the Klamath Lake region, in the southwestern corner of Eastern Oregon, is as large as the State of Rhode Island. About half of it is the finest kind of arable prairie land; the remainder good grazing and timber lands, all well watered. This entire section of country does not now contain over 40 or 50 settlers. In the northern part of Eastern Oregon is a strip of high, rolling prairie land, 10 or 15 miles wide, skirting the northern base of the Blue Mountains, and extending from the Cascade Mountains to the eastern line of the State, a distance of 150 miles. It is reasonably well watered; timber convenient on the adjacent mountains, and well adapted to grain-growing, grazing, and dairy purposes. Its present number of settlers is very small.

MINERAL RESOURCES.—Gold mines were discovered in Grant and Baker Counties, in Eastern Oregon, in 1861, and have been worked continuously every year since then. Like the mines of Southern Oregon, they are mostly placers located on the bars, banks, and in the beds of streams, and depend on heavy snows in the mountains and an abundance of water for successful working. They furnish constant employment to about 2,000 men.

Coal-mining is carried on at Coos Bay to a considerable extent. The principal vein at that point extends along a ridge bordering the bay, convenient of access for 12 or 15 miles, and is being worked at present by two companies. The coal is a good quality of soft or bituminous coal, and finds ready sale in San Francisco. Vessels are constantly loading at the mines, and departing for that market. The coal deposit has been worked about fifteen years, and promises to be inexhaustible. Coal of the same variety has been found in large quantities at several other points on the coast.

Extensive beds of iron ore exist at several points in the northwestern part of the State. At Oswego, six miles above Portland, on the banks of the Willamette River, the Oregon Iron Company has erected works for reducing the ore of an extensive deposit in that neighborhood. The works of this company, although of small capacity, have supplied the founderies of the State with pig iron for the past three years, and also shipped considerable quantities to San Francisco. The iron is of very fine compact grain, superior for most kinds of work to the best Scotch pig.

LUMBERING RESOURCES.—It has already been stated that the mountain ranges of Oregon are heavily timbered. The principal lumbering establishments are located on the Columbia River, below the junction of the Willamette, and at various points on the coast, where inlets, bays,

and arms of the sea provide safe anchorage for small craft, and where the forests are easy of access from navigable waters. In the interior of the State are many small mills erected for the purpose of supplying their own immediate neighborhoods, conducted solely with reference to that object.

The varieties of timber adapted to general lumbering purposes are the red, white, and yellow fir, cedar, spruce, hemlock, and in some parts of the interior pine and larch. The yellow fir is the main dependence for all purposes requiring strength and elasticity. Cedar is used for posts, and in foundations where it will come in contact with the ground, on account of its durable qualities in such situations. An excellent quality of ash is obtained along the streams and on the low lands in Western Oregon, suitable for various mechanical purposes; but there is no hickory or other timber suitable for wagon or carriage work. Lumber, like other Oregon products, finds its principal market at San Francisco and in the southern part of California. On the Columbia River, below the junction of the Willamette, there are a number of small mills in operation. Two of the largest have a capacity of 15,000 feet per day each. The others average from 3,000 to 10,000 feet per day. One is now in course of construction at the mouth of the river calculated to cut from 40,000 to 50,000 feet every ten hours. A small part of the lumber made on the Lower Columbia is consumed at Portland; the bulk of it goes to San Francisco, China, South America, the Sandwich Islands, and Mexico.

* * * * *

SCHOOLS.—The school fund of this State is under the management of a board of commissioners, who loan it at the rate of ten per cent. per annum interest, secured by mortgage on real estate. This fund amounted in 1868 to \$242,228, bringing an annual interest of \$24,222, to be distributed by law to the several counties for common school purposes, the amount to which each county is entitled being determined by a census of its children of the prescribed age. Each county levies a tax yearly for common school purposes, and each school district is authorized by law to levy a tax, in addition, sufficient to make the schools free to all and to keep them open the entire year. This is the case in all of the larger towns and most populous districts.

EMIGRANT ROUTES TO OREGON.—From all parts of the country on the Atlantic sea-board there are two practicable routes of travel to Oregon.

1st. By railway, across the continent. This is the more expeditious route of the two, and for emigrants for any point in the Western States is preferable to the other. Through tickets to San Francisco can be purchased at all the large cities of the Atlantic States, making the connection with the main line of road at Chicago or Omaha. The usual time consumed in making the trip to San Francisco is about seven days from New York and six from Chicago. From San Francisco to Portland, Oregon, the trip is made by ocean steamer in about four days; distance, 640 miles.

2d. From New York to San Francisco by ocean steamer, via Panama. The steamers of the Pacific Mail Steamship Company leave New York on the 5th and 21st of each month; time to San Francisco, twenty-two days. The fare by this route is somewhat subject to fluctuation, but always lower than the fare by railway. Passengers by this route are allowed a larger quantity of baggage free than by railway, and would not have to pay as high rates on extra baggage.

NEVADA.

Area, 29,319,680 acres. Population in 1870, 42,491.

Can land be purchased or rented in your district suitable for small farms on favorable terms?

White Pine, Esmeralda, Humboldt: yes, it can. Lander: only a limited number of farmers are required here, as it does not pay to raise more than enough for home consumption. Storey: there is no farming land in this division. Ormsby and Nye: the same.

What is the price per acre of small improved farms? State what proportion has been under cultivation, how much is fenced, and the kind of buildings?

Lyon and Churchill: all mineral lands. White Pine: very little improved Government or State lands; scarcely any under cultivation. Lander: about \$5 per acre; about one-tenth under cultivation and fenced; buildings usually adobe, and not very good. Esmeralda: very little land fenced in this county; from \$4 to \$10 per acre; wooden buildings. Storey: principally mining land. Ormsby, Humboldt, and Nye: the same.

What is the price per acre of unimproved land, what proportion is cleared, and how much, if any, is fenced?

Lyon and Churchill: very small proportion tillable. White Pine: \$1 25 per acre, generally prairie. Lander, Esmeralda, Humboldt, and Nye: Government price; all cleared by nature; none fenced.

What is the yearly rent of small improved farms? If rented on shares, what share does the owner receive? Does the latter provide stock, implements, or seeds?

Lander: farms are invariably rented on shares; the owner finds seeds and implements, and gets one-third of the product. Esmeralda: where the owner finds teams, seeds, and implements, he receives one-half; otherwise, one-third. Humboldt: there is no fixed rental value; on shares, the lessee usually receives one-half of the crop, the lessor finding the seeds, &c.

What are the chief articles of production, and what are the present prices of some of them?

Articles of production.	Prices.	Counties.
Wheat..... per pound..	\$0 06	Esmeralda.
Corn..... do.....	03	Esmeralda.
Barley..... do.....	03	Lyon, Churchill.
Do..... do.....	03½	Lander.
Do..... do.....	04	Esmeralda.
Potatoes..... do.....	02½	Lyon, Churchill.
Do..... do.....	03	Lander.
Do..... do.....	05	Esmeralda.
Oats..... do.....	05	Esmeralda.
Rye..... do.....	04	Esmeralda.

Storey, Ormsby, and Nye produce bullion.

What is the distance to a market town, a railroad station, or a steamboat landing?

Esmeralda and White Pine: 120 miles to railroad. Lander: a railroad runs through the north end of the county, 90 miles from Austin. Storey: 22 miles. Humboldt: 20 miles. Nye: 180 miles.

What is the general quality of land and the kind of timber?

Lyon and Churchill: mineral land; pine timber. White Pine: land good, but requires irrigation; timber—mountain mahogany and dwarfish pine. Lander: plenty of land of good quality, but no water to irrigate with, and no timber except a little on the mountains. Esmeralda: in the valleys and on the streams there is good farming land; the wood is nut-pine. Storey: the lands are of a semi-desert character; the timber is nut-pine or piñon; it has all been cut for fuel or furnace wood. Ormsby: good land; pine timber. Humboldt: generally desert, with a few fertile spots; timber of two kinds—stunted pine and mountain mahogany. Nye: birch and small nut pine.

For what kind of labor is there a demand?

Lyon and Churchill: miners. White Pine and Nye: none. Ormsby: wood-choppers. Lander and Esmeralda: miners, \$4 per day; also farmers and wood-choppers. Storey: miners and mechanics. Humboldt: miners, mill-hands, farm laborers, and mechanics.

What mills or factories, if any, are in operation or in progress requiring skilled labor?

Lyon and Churchill: quartz-mills, crushing and working ores. White Pine, Esmeralda, and Humboldt: quartz-mills. Ormsby: quartz-mills and saw-mills. Storey: thirty-six quartz-mills, containing an aggregate of 623 stamps; 1,510 horse-power is employed therein; they afford facilities for crushing 850 tons per day.

Are there in your vicinity any railroads or other public works in progress requiring common labor? If so, how far distant?

Lyon and Churchill: Virginia and Truckee Railroad, 4 miles distant. Ormsby: about 20 miles distant.

Please state any advantages which your district can offer to laborers, mechanics, or small farmers. Is there much land, of good quality and well watered, yet unoccupied?

Lyon and Churchill: the advantages are chiefly in favor of miners, mill-wrights, engineers, &c. White Pine: almost unlimited facilities for grazing and stock-raising. Lander: plenty of good land, but not well watered. Esmeralda: the land in this county has to be irrigated from streams; we have plenty of good quartz ledges in this county, but the mill-men charge \$25 per ton for crushing. Storey: laborers, \$3 50 per day; mechanics, \$6 to \$7; miners, \$4. Ormsby: there is a demand for common laborers and mechanics at good wages. Humboldt: steady work and high wages for mechanics and miners. Nye: none at present.

What are the prices of ordinary farm stock, sound and in good condition?

Counties.	Working oxen, per pair.	Working horses, each.	Working mules, each.	Milch cows, each.	Sheep, each.	Hogs, each.
Lyon	\$225	\$175	\$200	\$100	\$7 5	\$20, in coin.
White Pine	100	\$80 to 100	150	40	5	\$12
Lander	150	75	100	40	4	\$10 to 30
Esmeralda	\$100 to 150	75 to 150	\$100 to 200	\$40 to 100	\$2 50 to 3 50	2 50 to 6
Storey	150	100	150	60	6c. lb., on ft.	10c. lb., on ft.
Humboldt	150	125	200	60	3 50	\$15, in coin.
Average	\$150	\$112 91	\$158 33	\$61 66	\$4 75	\$14 25

WASHINGTON TERRITORY.

Area, 112,730,240 acres. Population in 1870, 23,955.

Can land be purchased or rented in your district suitable for small farms on favorable terms?

Walla-Walla and Stevens: it can; there is a great amount of public land not taken up.

What is the price per acre of small improved farms? State what proportion has been under cultivation, how much is fenced, and the kind of buildings?

Walla-Walla: from \$5 to \$20 per acre; all or a part of it under cultivation and fenced; buildings frame or log. Stevens: about \$5 per acre; the improvements are much the same as in all new countries, viz, log buildings.

What is the price per acre of unimproved land, what proportion is cleared, and how much, if any, is fenced?

Walla-Walla: nearly all the farming land in this county is prairie, the price ranging from \$1 25 to \$5 per acre; no clearing required. Stevens: Government lands are open for preëmption at \$1 25 per acre.

What is the yearly rent of small improved farms? If rented on shares, what share does the owner receive? Does the latter provide stock, implements, or seeds?

Walla-Walla: farms may be rented on good terms. Stevens: the owner furnishes stock and seed and receives one-third of all the produce.

What are the chief articles of production, and what are the present prices of two or three of them?

Walla-Walla: wheat, \$1 per bushel; oats, 75 cents; barley, 2 to 2½ cents per pound; potatoes, Irish, 1½ cents per pound; sweet-potatoes, 5 to 6 cents. Stevens: wheat, \$2 per bushel; oats, \$1; vegetables, from \$1 to \$5.

What is the distance to a market town, a railroad station, or a steamboat landing?

Walla-Walla: the city of Walla-Walla is a market town, distance 5 to 30 miles; no railroad stations; nearest steamboat landing 32 miles. Stevens: the produce of this county is taken to mining camps, from 75 to 500 miles distant.

What is the general quality of land and the kind of timber?

Walla-Walla: black rich alluvial soil with some clay; timber—birch, alder, pine, fir, cottonwood, balm, locust, and yew. Stevens: the land is extremely fertile; mostly black loam; pine, fir, turmeric, birch, and cedar.

For what kind of labor is there a demand?

Walla-Walla: all kinds. Stevens: farm laborers and some skilled workmen would find employment.

What mills or factories, if any, are in operation or in progress requiring skilled labor?

Walla-Walla: flour and saw mills and sash, door, and blind factories. Stevens: three grist-mills and two saw-mills; one of the saw-mills belongs to the Government.

Are there in your vicinity any railroads or other public works in progress requiring common labor? If so, how far distant?

Walla-Walla: we expect soon to see the Northern Pacific Railroad commenced which, when in operation, will make this a great country. Stevens: the Northern Pacific Railroad about 75 miles from here.

Please state any advantages which your district can offer to laborers, mechanics, or small farmers. Is there much land, of good quality and well watered, yet unoccupied?

Walla-Walla: there is plenty of good land yet unoccupied, and water for irrigation is easily obtained. Stevens: this county contains about 30,000 square miles, and only about one-twentieth of it is now occupied; about 300 settlers have come into the southern part of the county this year; gold is found almost everywhere, but the county has not been thoroughly prospected yet.

What are the prices of ordinary farm stock, sound and in good condition?

Counties.	Working oxen, per pair.	Working horses, each.	Working mules, each.	Milch cows, each.	Sheep, each.	Hogs.
Walla-Walla.....	\$80 to 150	\$100 to 150	\$125 to 200	\$30 to 50	\$2 25 to 4 00	4 to 6 cts. lb.
Stevens.....	125	75 to 100	100	45 to 70	10 00	\$5 to 20 each.
Average.....	\$120	\$106	\$131	\$48 50	\$3 12½	.....

TERRITORY OF MONTANA.*

Area, 92,016,640 acres. Population in 1870, 20,594.

Can land be purchased or rented in your district suitable for small farms on favorable terms?

Lewis and Clarke: yes; land newly surveyed is now subject to entry at Government price. Deer Lodge and Gallatin: yes.

What is the price per acre of small improved farms? State what proportion has been under cultivation, how much is fenced, and the kind of buildings.

Small improved farms are valued according to the improvements upon them; well improved, they are valued at from \$3 to \$5 per acre; generally log buildings. Deer Lodge: from \$10 to \$30. Gallatin: \$1 to \$10 per acre.

What is the price per acre of unimproved land, what proportion is cleared, and how much, if any, is fenced?

Lewis and Clarke: \$1 25 per acre; all bottom land is free from timber; the hills are covered with pine, spruce, and fir; the borders of the streams produce cottonwood and aspen. Deer Lodge: unimproved land has no value, the entire valleys being one great pasture and requiring no fences. Gallatin: \$1 60 per acre, Government price; none fenced.

What is the yearly rent of small improved farms? If rented on shares, what share does the owner receive? Does the latter provide stock, implements, or seeds?

Lewis and Clarke: nearly all are rented on shares, generally the owner supplying the stock necessary to work the same, and receiving in some localities one-half, and in others two-thirds of the product. Deer Lodge and Gallatin: the owner furnishing team, seeds, &c., receives one-half the product.

* Omitted in the Northwestern States and Territories.

What are the chief articles of production, and what are the present prices of two or three of them ?

Articles of production.	Prices.	Counties.
Wheat .....per pound..	\$0 03	Lewis, Clarke.
Do.....per bushel..	2 00	Gallatin.
Do.....do.....	2 50	Deer Lodge.
Barley .....per pound..	02½	Lewis, Clarke, Gallatin.
Do.....per bushel..	2 00	Deer Lodge.
Oats.....per bushel..	2 00	Deer Lodge.
Do.....per pound..	2½	Gallatin.
Potatoes.....do.....	3	Lewis, Clarke.
Turnips .....do.....	2	Lewis, Clarke.

What is the distance to a market town, a railroad station, or a steamboat landing ?

Lewis and Clarke: Helena is the chief market town of this county; nearest steamboat landing, Fort Benton, 120 miles; railroad station 450 miles. Deer Lodge: we have a home market at the mining camps. Gallatin: 100 miles to market town, 400 miles to railroad station, 240 miles to steamboat landing.

What is the general quality of land and the kind of timber ?

Lewis and Clarke: bottom land rich loam; upland well timbered with pine, spruce, fir, aspen, and cottonwood. Deer Lodge: the soil is the best sand loam; the timber is every variety of pine. Gallatin: land good; pine and cottonwood timber.

For what kind of labor is there a demand ?

Lewis and Clarke: farmers, mechanics, teamsters, and female laborers are in great demand. Deer Lodge: miners, farm hands, and all kinds of mechanics. Gallatin: farm hands.

What mills or factories, if any, are in operation or in progress requiring skilled labor ?

Lewis and Clarke: one flour-mill, six quartz-mills, one distillery, and four breweries. Deer Lodge: quartz-mills. Gallatin: none.

Are there in your vicinity any railroads or other public works in progress requiring common labor ? If so, how far distant ?

Lewis and Clarke: none in progress; the Northern Pacific Railroad is contemplated; when built it will run 600 miles through this Territory. Deer Lodge: the same. Gallatin: none.

Please state any advantages which your district can offer to laborers, mechanics, or small farmers. Is there much land, of good quality and well watered, yet unoccupied ?

Lewis and Clarke: the advantages offered to all kinds of skilled and common laborers are very great; wages are high, and the cost of living is comparatively small; the quantity of good land unoccupied is very greatly in excess of the quantity occupied. Deer Lodge: we offer laborers \$5 a day as miners, and \$50 per month as farm hands. Gallatin: plenty of land unoccupied and still in the hands of the Government.

What are the prices of ordinary farm stock, sound and in good condition ?

Counties.	Working oxen, per pair.	Working horses, each.	Working mules, each.	Milch cows, each.	Sheep, each.	Hogs, per pound.
Lewis and Clarke.....	\$150	\$157	\$200	\$55	\$12	21 cents.
Gallatin.....	150	200	250	50	.....	12 cents.
Deer Lodge.....	125	125	125	75	6	25 cents.
Average.....	\$141	\$160	\$191	\$50	\$9	19 cents.

A statement of the nationalities of Immigrants arrived in the United States during the quarter ended March 31, 1871.

Countries of last residence.	Males.	Females.	Total.
England.....	4,084	1,776	5,860
Ireland.....	2,923	1,565	4,488
Scotland.....	692	381	1,073
Wales.....	82	53	135
Great Britain, not specified*.....	789	352	1,141
Total United Kingdom.....	8,570	4,127	12,697
Germany.....	3,659	2,252	5,911
Austria.....	259	160	419
Sweden.....	218	78	296
Norway.....	71	4	75
Denmark.....	40	7	47
Holland.....	100	18	118
Belgium.....	8	2	10
Switzerland.....	252	119	371
France.....	157	176	333
Spain.....	65	17	82
Portugal.....	2	1	3
Italy.....	276	65	341
Greece.....	1	.....	1
Turkey.....	3	.....	3
Russia.....	83	57	140
Poland.....	38	29	67
China.....	297	14	311
Japan.....	17	.....	17
India.....	1	.....	1
South Africa.....	1	.....	1
Morocco.....	9	.....	9
Canada.....	1,232	746	1,978
Nova Scotia.....	1,576	885	2,461
New Brunswick.....	1	1	2
Prince Edward Island.....	1	.....	1
Newfoundland.....	2	4	6
British North American Provinces, not specified.....	9	.....	9
Mexico.....	74	12	86
Venezuela.....	1	1	2
Guiana.....	1	1	2
Brazil.....	2	1	3
Argentine Republic.....	7	6	13
Cuba.....	73	38	111
Haiti.....	3	.....	3
Jamaica.....	4	3	7
Porto Rico.....	3	.....	3
Bahamas.....	33	41	74
Barbadoes.....	1	.....	1
Caribbees.....	3	.....	3
West Indies, not specified.....	3	1	4
Azores.....	12	7	19
Bermudas.....	2	.....	2
Australia.....	2	1	3
Total immigrants.....	17,172	8,874	26,046

* The greater part of this number should probably be added to those from Ireland.

TABLES

SHOWING

THE AVERAGE WEEKLY WAGES PAID IN THE SEVERAL
STATES AND SECTIONS FOR FACTORY, MECHANICAL,
AND FARM LABOR; THE COST OF PROVISIONS,
GROCERIES, DRY GOODS, AND HOUSE
RENT IN THE VARIOUS MANU-
FACTURING DISTRICTS OF
THE COUNTRY, IN
THE YEAR
1869-'70.

FACTORY LABOR.

COTTON MILLS.

Table showing the average rates of wages paid to persons employed in the cotton-mills of the several States in the year 1869; also, the rates paid in Great Britain in 1866 as compared with the average (gold) rates in the United States in 1869.

Occupation.	AVERAGE WEEKLY WAGES OR EARNINGS IN—								General average.	IN GOLD.		
	Maine.	New Hampshire.	Massachusetts.	Rhode Island.	Connecticut.	New York.	Pennsylvania.	Delaware.		Aver. in United States in 1869.	Average in Great Britain in 1866.	Per cent. excess in U. States over Great Britain.
CARDING.												
Overseer	\$21 50	\$18 03	\$23 40	\$17 00	\$16 60	\$15 00	\$25 00	\$12 00	\$18 03	\$13 87	\$7 97	74.03
Picker tenders	7 50	7 50	8 25	7 80	7 00	7 00	7 00	7 95	7 42	5 71	8 35	142.98
Railway tenders	6 50	4 57	4 28	3 50	4 60	4 00	.....	.....	4 02	3 09	1 92	61.45
Drawing-frame tenders	4 00	4 41	4 44	5 00	4 66	4 00	.....	4 20	4 25	3 27	2 75	18.91
Speeder tenders	5 75	5 65	6 50	6 12	6 00	5 50	.....	4 72	5 41	4 16	2 75	51.27
Picker boy	3 50	4 35	5 80	6 25	4 00	.....	.....	.....	4 78	3 68	12 35	56.39
Grinders	10 00	8 84	9 80	9 08	9 50	8 00	.....	8 70	8 72	6 70	5 37	24.76
Strippers	7 25	7 27	7 70	9 50	7 00	6 00	7 00	7 92	7 23	5 56	4 26	30.51
SPINNING.												
Overseer	22 00	16 83	21 00	15 60	17 50	15 00	16 00	20 00	17 50	13 46	7 42	81.40
Mule spinners	10 87	11 64	11 75	9 50	9 30	10 00	14 00	9 10	10 85	8 35	5 36	53.78
Mule backside piecers	2 50	3 21	3 14	2 85	2 50	3 50	2 00	1 80	2 48	1 90	1 65	15.15
Frame spinners	4 40	5 20	6 75	5 00	3 25	3 50	.....	2 12	3 52	2 70	2 37	13.92
DRESSING.												
Overseer	20 00	17 60	21 00	13 75	16 50	13 50	.....	.....	15 27	11 75	.....	.....
Second hand	11 78	10 66	13 10	9 00	14 40	.....	.....	.....	11 80	9 68	.....	.....
Spoolers	4 10	4 64	6 50	5 00	4 55	4 25	.....	5 25	5 10	3 92	2 47	58.70
Warpers	5 50	5 61	6 10	5 75	4 68	.....	.....	3 75	4 49	3 46	3 85	10.13
Drawers and twisters	5 75	6 24	6 00	5 00	6 00	.....	.....	4 00	4 75	3 65	3 30	10.60
Dressers	11 10	11 43	14 00	11 25	11 80	.....	.....	.....	14 10	10 85	.....	.....
WEAVING.												
Overseer	21 00	15 52	22 20	18 33	15 00	15 00	16 00	.....	16 25	12 50	10 00	25.00
Weavers	7 00	6 23	7 71	8 00	8 00	.....	10 00	7 34	8 23	6 33	4 54	39.42
Drawing-in hands	6 00	4 62	7 00	7 50	6 30	.....	.....	.....	6 23	4 80	2 61	83.91
REPAIR SHOP, ENGINE-ROOM, &c.												
Foreman	23 00	15 87	23 66	18 00	17 00	15 00	11 00	.....	15 22	11 70	.....	.....
Wood workers	14 25	12 96	15 80	13 00	16 25	.....	.....	15 00	14 98	11 52	7 42	53.27
Iron workers	13 18	12 13	15 27	13 16	11 75	10 50	.....	15 00	12 72	9 79	7 42	31.94
Engineer .....	.....	13 80	14 30	18 00	9 00	12 00	.....	.....	13 40	10 31	6 60	56.21
Laborers	8 00	9 08	8 75	9 33	8 66	8 00	10 00	8 25	8 87	6 82	4 50	51.55
Overseer in cloth room	17 50	11 67	17 75	15 00	11 00	12 00	12 50	9 69	12 18	9 37	.....	.....

NOTE.—Hours of labor per week in the United States, (generally,) 66; in Great Britain, 60. Average excess of wages paid in the cotton-mills of the United States in 1869 (gold) over the rates in Great Britain, 39.9 per cent. Omitting overseers, the average weekly earnings of operatives in the cotton-mills of the United States in 1869 was \$5 56, gold, and in Great Britain \$3 89.

Table showing the average rates of wages paid to persons employed in the woolen-mills of the United States in the year 1869; also the rates paid in England, with the percentage of excess in the rates paid in the United States over that country.

AVERAGE WEEKLY WAGES IN THE FOLLOWING STATES IN 1869—												AVERAGE WAGES, GOLD VALUE.			
Occupation.	Maine.	New Hampshire and Vermont.	Massachusetts.	Rhode Island.	Connecticut.	New Jersey.	Pennsylvania and New York.	Maryland.	Virginia and West Virginia.	Indiana and Ohio.	Wisconsin, Iowa, and Kansas.	General average in United States in 1869.	United States in 1869, (rate 1.30).	England in 1867.	Percent. excess in wages U. States over England.
PREPARING.															
Wool sorters.....	\$12 00	\$11 00	\$12 55	\$10 10	.....	.....	\$12 00	88 00	86 00	\$13 30	\$19 75	\$10 85	88 35	\$6 75	33 70
Wool washers.....	9 72	9 00	7 05	8 65	.....	.....	.....	.....	.....	10 16	9 00	8 25	6 35	5 50	15 45
Dyers.....	11 63	11 25	9 90	8 00	88 25	10 25	10 00	.....	13 50	16 25	14 25	12 43	9 00	5 50	73 82
Oversorts.....	18 00	15 00	17 50	16 50	21 00	21 00	.....	.....	.....	20 50	18 00	16 53	12 76	9 00	41 77
CARDING AND SPINNING.															
Pickers.....	7 33	9 00	7 88	7 16	8 00	7 75	.....	7 00	4 00	6 90	5 25	7 03	5 40	5 00	31 30
Carders.....	*6 33	7 15	*4 95	6 32	*3 50	5 20	*5 16	5 00	*4 75	8 50	9 50	6 07	4 67	3 85	20 30
Spinners.....	11 50	12 00	9 55	9 00	10 80	12 68	8 33	12 00	7 72	14 27	15 00	11 19	8 62	6 00	43 67
Warpers and beamers.....	8 16	*7 31	10 16	10 00	12 00	*6 37	10 00	7 00	7 12	9 37	9 00	8 73	6 71	5 63	10 18
Reckers.....	*8 75	6 00	*4 25	6 00	6 50	*3 00	*2 50	.....	*3 25	*5 37	*4 50	4 02	3 78	2 75	37 45
Oversorts.....	14 65	17 50	17 30	15 10	24 00	21 00	12 00	.....	12 00	.....	19 50	17 33	13 33	9 00	46 11
Assistants.....	10 25	6 37	10 10	12 00	10 50	11 00	.....	.....	.....	8 00	.....	9 74	7 49	.....	.....
WEAVING.															
Weavers.....	*7 32	*7 50	*7 30	*7 65	*8 16	*8 00	10 50	8 00	*7 75	*7 00	*7 50	7 88	6 06	4 67	20 76
Barriers.....	*4 50	*5 75	*4 50	*4 40	*5 40	*4 60	.....	.....	*3 50	*5 40	*6 00	*4 92	*3 78	2 43	30 16
Oversorts.....	17 33	16 50	17 65	16 95	12 00	16 50	16 00	14 00	18 60	15 00	18 00	16 10	12 39	10 00	23 90
DRESSING AND FINISHING.															
Fullers.....	8 75	9 00	9 24	8 40	7 50	9 37	7 00	8 00	6 00	11 75	10 50	8 77	6 75	5 75	17 39
Pressers or glazers.....	7 53	7 40	7 80	6 00	7 50	10 00	.....	.....	.....	10 50	7 50	8 00	6 22	5 50	13 09
Finishers.....	12 33	*8 90	8 15	6 75	7 50	12 00	*3 50	14 00	.....	13 50	10 50	9 72	7 47	6 00	24 60
Press Leaders.....	9 33	10 50	8 24	9 50	11 50	8 12	.....	.....	7 50	9 00	.....	9 16	7 04	5 15	32 43
Drawers.....	.....	6 00	6 00	6 00	*7 50	*5 25	.....	.....	.....	.....	6 00	6 13	4 72	4 13	13 31

* Females.

Table showing the average rates of wages paid to persons employed in the woolen-mills, &c.—Continued.

Occupation.	AVERAGE WEEKLY WAGES IN THE FOLLOWING STATES IN 1869—											AVERAGE WAGES, GOLD VALUE.			
	Maine.	New Hampshire and Vermont.	Massachusetts.	Rhode Island.	Connecticut.	New Jersey.	Pennsylvania and New York.	Maryland.	Virginia and West Virginia.	Indiana and Ohio.	Wisconsin, Iowa, and Kansas.	General average in United States in 1869.	United States in 1869, (rate 1.30.)	England in 1867.	Per cent. excess in wages U. States over England.
DRESSING AND FINISHING—Continued.															
Brushers	\$4.50	.....	\$5.10	\$6.00	\$7.00	\$3.00	.....	.....	.....	\$10.00	.....	\$5.02	\$3.86	\$2.75	40.36
Packers	9.37	\$8.40	8.62	8.75	.....	9.00	.....	.....	.....	.....	.....	8.55	6.81	5.50	23.82
Overseers	30.25	16.50	19.06	20.25	16.50	12.00	.....	\$18.00	.....	15.00	\$21.00	17.62	12.78	10.00	27.80
Assistants	10.00	9.75	9.40	12.00	12.00	.....	.....	.....	.....	9.00	.....	.....	.....	.....	.....
ENGINE-ROOM, YARD, ETC.															
Engineers	.....	10.50	14.60	10.00	12.50	17.25	\$9.75	.....	.....	11.50	15.00	12.64	9.72	7.50	20.60
Mechanics	12.33	16.75	15.37	16.50	12.00	13.00	.....	.....	.....	.....	18.00	15.13	11.64	7.70	51.17
Labormen, (watchmen included)	9.16	9.00	9.20	10.66	9.25	11.25	.....	.....	.....	10.00	10.50	9.88	7.60	4.75	60.00
Foreman	18.00	10.50	17.00	.....	.....	.....	9.00	.....	.....	.....	.....	13.63	10.42	7.50	38.93

* Females.

NOTE.—Hours of labor per week in England, 60; in the United States, 66. To make them equal, 10 per cent has been added to the wages paid in England, and the increased rates are given in the above table.

Average advance of wages paid in the United States in 1869 over those of England in 1867-'68, (both in gold,) 24.36 per cent.

PAPER-MILLS.

Table showing the average weekly wages of persons employed in paper-mills in the United States, in the year 1869; also the rates paid in England in 1867 and 1868, as compared therewith.

Occupation.	AVERAGE WAGES OR EARNINGS IN—					IN GOLD AT 1.30.		
	New England.	Pennsylvania.	Ohio.	Wisconsin and Illinois.	United States.	In United States, 1869.	Rates in England, 1867.	Per cent. excess in United States over England.*
Machine-tenders	\$16 87	\$13 50	\$15 83	\$13 75	\$14 99	\$11 53	\$6 50	77.38
Assistant	9 42	8 25	8 25		8 64	6 65	12 87	
Rag-cutters, (males)	10 13	6 00	11 25	11 33	9 09	7 45	4 00	86.25
Rag-cutters, (females)	5 81	4 00	4 40	4 10	4 58	3 52	1 75	100.00
Loftmen or dyers	14 33		12 00	9 00	11 78	9 06	4 00	126.50
Calender-men	15 50	12 00	9 00		12 17	9 36		
Calender-women	5 50	4 50	4 00	4 00	4 50	3 46	1 75	97.14
Finishers	12 31	13 00	11 75	12 50	12 39	9 53	6 50	46.62
Engine-men	14 10	12 00	14 20	11 75	13 01	10 01	6 56	52.59
Engine-helpers	11 00	10 50	9 84	9 00	10 09	7 76	12 87	
Bleachers	10 02	12 00	10 67	9 66	10 74	7 81	4 50	73.56
Sizers	11 50		12 00		11 75	7 82	4 44	78.38
Paper-sorters, (women)	5 81				5 81	4 47	1 75	155.71
Millwrights	20 50	16 50	19 00	15 00	17 75	13 65	7 00	95.00
Masons		12 00	16 50		14 25	10 96	6 25	75.36
Engineers	18 00	15 00	13 50		15 50	11 92	7 25	64.44
Laborers, or unskilled workmen	10 25	8 25	9 33	9 33	9 29	7 14	4 67	52.89
Apprentices, or boys	6 00		4 70	4 75	5 15	4 00	2 50	61.00
Foremen, or overseers	22 00	27 50	19 40	31 66	26 64	20 50	9 00	127.77
Carpenters	15 33	13 50	17 25	15 00	15 27	11 74	6 62	77.34
Blacksmiths		12 00	16 50		14 25	10 96		
Firemen	11 33	9 50	8 30	10 25	9 84	7 57	4 50	68.22

*Average advance in rates paid in the United States in 1869 over those of England in 1867, 82 per cent.
†Boys. ‡Females.

MUSICAL INSTRUMENTS.

Table showing average rates of weekly wages paid to persons employed in musical instrument factories in the year 1869.

Piano-fortes.	Eastern States.	Western States.	General average.	Piano-fortes.	Eastern States.	Western States.	General average.
Regulators, (action)	\$18 44	\$28 00	\$23 22	Stringer and tuner	\$24 68	\$22 50	\$23 59
Regulators, (tone)	17 00	30 00	23 50	Finishers	25 02	22 00	23 51
Case-makers	19 41	22 50	20 96	Machinists	19 02		
Top-makers	21 83	21 00	21 42	Key-makers	17 71		
Varnishers	22 41	16 00	19 20	Board-makers	21 36		
Polishers		24 00		Wood-workers, (by machinery)	16 78		
Small workers		18 00					

Organs.	Wages.	Organs.	Wages.
General action	\$18 00	Voicers	\$26 00
Case-makers	18 00	Pipe-makers, (metal)	24 90
Chest-makers	18 00	Pipe-makers, (wood)	19 38
Top-makers	19 25	Bel lows	19 93
Tuners	31 50	Decorators	16 00
Draughtsmen	16 50	Clerks	17 56
Mechanics	15 00	Laborers	12 00
Boys	6 43	Foremen	28 88

IRON FOUNDERIES AND MACHINE SHOPS.

Table showing the average weekly wages paid to persons employed in the iron foundries and machine shops of the New England, Middle, and Western States; also the average rates in various sections, in the year 1869.

Occupation.	Maine.	New Hampshire.	Vermont.	Massachusetts.	Rhode Island.	Connecticut.	Average, New England.	New Jersey.	Pennsylvania.
Iron-molders	\$12 84	\$17 00	\$13 50	\$16 50	\$10 86	\$20 70	\$16 73	\$17 75	\$17 25
Machinists, best	14 27	15 50	15 00	19 70	18 80	19 50	17 13	13 18	16 80
Machinists, ordinary	12 90	11 86	12 00	14 77	16 50	16 50	13 92	14 81	14 55
Machinists, inferior	6 00	9 33		11 40	15 60	12 00	10 86	13 12	11 89
Helpers	10 50	7 94		10 25	9 00	9 90	9 51	10 46	10 18
Boiler-makers				13 60		17 40	15 50	15 48	15 00
Helpers	6 00			9 75		16 50	8 75	9 24	11 00
Riveters				14 00		10 50	15 25	12 75	13 00
Holders on				10 60		10 50	10 55	9 87	9 00
Flangers				15 00		21 00	18 00		
Helpers				10 25		10 50	10 37		
Blacksmiths	15 00	16 50	16 50	16 50	24 00	16 50	17 50	16 97	14 15
Helpers		11 25	12 00	10 45	9 00	10 50	10 64	10 58	9 65
Foremen	20 00	19 50	18 00	26 34	23 12	23 70	21 77	24 09	21 33
Engineers				15 00		13 50	14 25	13 00	12 91
Pattern-makers, and carpenters.	14 25	16 06	16 50	18 24	16 50	18 55	16 67	18 66	14 92
Assistants		15 50		12 00		12 00	13 16		9 29
Laborers, carters	10 50	9 00	10 50	9 96	9 60	9 58	9 69	10 55	9 28
Apprentices	6 00	5 00	6 00	5 89	6 00	7 50	6 06	5 25	4 67
Millwrights	21 00	18 00					19 50		
Assistants									
Brass-founders				15 00			15 00		
Fitters									14 50
Turners				19 50			19 50		

Occupation.	Delaware and Maryland.	Average, Middle States.	Ohio.	Indiana.	Illinois.	Michigan.	Minnesota.	Wisconsin.	Missouri.
Iron-molders	\$14 00	\$15 90	\$16 47	\$15 00	\$18 00	\$16 50	\$16 00	\$14 66	\$18 59
Machinists, best	15 25	16 51	18 04	15 00	18 50	16 50	18 00	13 67	18 66
Machinists, ordinary	13 50	13 37	14 30	11 00	14 50	12 33	15 50	14 27	15 33
Machinists, inferior	10 62	11 44	10 59	10 00	12 00	6 00	9 00	11 50	12 00
Helpers	8 75	9 53	10 42	9 00	9 00		9 00	9 70	10 66
Boiler-makers	15 00	15 07	17 50				18 00		
Helpers	8 50	9 67	10 72				12 00		
Riveters	14 00	13 53	16 35						
Holders on	9 00	9 33	12 75						
Flangers	18 00	17 06	18 00				19 50		
Helpers	10 00	9 50	9 48				12 00		
Blacksmiths	15 00	15 46	17 63	14 00	15 75	14 25	18 00	17 50	17 43
Helpers	8 63	9 52	10 33	9 00	11 12	9 75	11 00	9 33	10 84
Foremen	22 00	21 88	23 59		21 50		22 50	21 50	27 63
Engineers	11 75	11 23	12 61						16 81
Pattern-makers and carpenters.	15 00	16 16	16 64	14 25	15 37	17 50	18 00	14 29	19 71
Assistants	6 00	8 09	15 50		9 37	9 75	9 00	10 82	11 80
Laborers, carters	8 75	9 41	10 34						
Apprentices	4 17	4 63	4 97		7 00			6 00	5 10
Millwrights	15 00	16 50	21 00				24 00	22 00	18 00
Assistants									
Brass-founders	17 00	19 00					19 50	18 00	18 00
Fitters									19 00
Turners	13 00	13 00							19 50

Table showing average weekly wages of employes in iron foundries, &c.—Continued.

Occupation.	Average, New England.	Average, Middle States.	Average, Western States.	Average, California.	General average, United States.	In gold at \$1.30, 1869.	In England, 1867-'68.	Percentage of excess of the United States over England.
Iron-molders	\$16 73	\$15 90	\$16 37	\$24 00	\$18 25	\$14 04	\$8 00	75.50
Machinists, best	17 13	16 54	17 63	24 00	18 83	14 43	8 50	70.35
Machinists, ordinary	13 92	13 37	13 76	21 00	15 51	11 93	7 00	70.43
Machinists, inferior	10 86	11 44	10 14	.....	10 81	8 31	5 00	66.22
Helpers	9 51	9 59	9 46	.....	9 52	7 32	4 00	83.00
Boiler-makers	15 50	15 07	17 75	27 00	18 83	14 49	7 50	83.20
Helpers	8 75	9 67	11 36	.....	9 93	7 64	4 00	91.00
Riveters	15 25	13 50	16 35	.....	15 03	11 55	6 50	77.84
Holders on	10 55	9 30	12 75	.....	10 87	8 36	4 75	76.00
Flangers	18 00	17 06	18 75	.....	17 94	13 80	7 50	84.60
Helpers	10 37	9 50	10 74	.....	10 20	7 84	4 00	96.00
Blacksmiths	17 50	15 46	16 37	24 00	18 33	14 10	7 25	94.48
Helpers	10 64	9 52	10 19	18 00	12 09	9 30	3 50	105.68
Foremen	21 77	21 88	23 34	30 00	24 25	18 65	.....	.....
Engineers	14 25	11 23	14 71	.....	13 40	10 31	5 50	87.45
Pattern-makers and carpenters	16 67	16 16	16 53	28 00	19 34	14 87	7 50	98.26
Assistants	13 16	8 09	10 81	21 00	13 27	10 21	4 50	126.67
Laborers, (carters)	9 69	9 41	10 34	.....	9 81	7 54	4 50	67.56
Apprentices	6 06	4 68	5 76	6 00	5 62	4 32	2 50	72.80
Millwrights	19 50	16 50	21 25	.....	19 08	14 67	8 00	83.37
Assistants .....	.....	8 00	.....	.....	8 00	6 15	.....	.....
Brass-founders	15 00	19 00	18 50	.....	17 50	13 46	7 50	79.46
Pitters .....	.....	15 25	19 00	.....	17 12	13 17	6 50	102.61
Turners	19 50	13 00	.....	.....	16 25	12 50	6 50	92.31

NOTE.—Hours of labor per week, 60; average advance of wages in the United States in 1869 over England in 1867-'68, 86 per cent.

HARDWARE MANUFACTORIES.

Table showing the average weekly wages paid to persons employed in the hardware manufactories of the United States in the year 1869.

Occupation.	WEEKLY WAGES OR EARNINGS IN—						
	Maine and Vermont.	Massachusetts.	Connecticut.	New England.	Middle States.	Western States.	United States.
Molders, iron .....	.....	\$15 00	\$15 16	\$15 08	\$14 75	\$15 00	\$15 04
Molders, brass .....	.....	.....	18 57	18 57	.....	12 00	16 38
Cupola tenders .....	.....	18 00	13 25	15 62	12 75	9 00	13 72
Annealing furnace tenders .....	.....	14 50	10 13	12 31	12 25	.....	12 30
Pilers	\$12 00	15 00	12 50	13 17	13 00	11 75	12 00
Japanners .....	.....	.....	11 25	11 25	.....	17 00	13 17
Forgers	18 00	21 33	15 40	18 24	16 50	.....	17 89
Helpers	9 00	11 25	10 37	10 21	10 81	9 25	10 15
Grinders	16 00	18 66	13 30	17 32	11 25	15 00	15 24
Polishers	12 00	15 75	12 25	13 33	14 00	12 50	13 31
Turners .....	.....	.....	14 25	14 25	12 50	14 00	13 75
Machinists .....	.....	16 50	16 71	16 69	16 08	16 50	16 48
Engineers .....	.....	18 00	16 80	17 40	14 00	11 46	15 57
Furnace men .....	.....	18 00	10 50	14 50	17 33	.....	16 61
Laborers	10 50	9 75	10 66	9 60	10 62	8 33	9 75
Packers	11 25	15 00	13 54	14 51	12 23	.....	13 29
females	7 00	7 00	5 55	6 37	.....	.....	7 23
Die-makers	25 00	22 50	28 66	25 39	16 87	.....	23 68
Press workmen .....	.....	15 00	12 50	13 75	12 00	12 00	13 05
females .....	.....	.....	6 00	6 00	.....	.....	6 00
Rollers .....	.....	.....	25 50	25 50	12 00	.....	20 83
Welders	17 00	.....	.....	17 00	.....	.....	17 00
Stampers .....	.....	.....	11 25	11 25	.....	.....	11 25
Finishers	18 00	.....	12 75	15 37	.....	14 25	15 09
Pattern-makers .....	.....	18 00	21 10	19 55	19 50	13 50	18 31
Carpenters .....	.....	.....	16 70	16 70	16 50	17 00	16 73
Trip-hammer men .....	.....	20 25	19 50	19 87	.....	.....	19 87
Blacksmiths .....	.....	20 25	21 40	20 82	15 76	14 83	18 61
Helpers	12 00	11 25	11 40	11 33	10 90	10 00	11 15
Foremen	24 00	25 00	23 62	24 21	23 16	23 41	23 40
Apprentices or boys	5 25	7 08	6 05	6 41	3 50	4 38	5 44
Girls .....	.....	6 00	5 92	5 98	8 70	.....	6 65

CARRIAGE HARDWARE.

Table showing the average rates of weekly wages paid in two manufactories of carriage hardware, in the State of Connecticut, in the year 1869.

Watchmen	\$15 75	Burnishers	\$15 00
Japanners	10 00	Engineers	18 25
Forgers of bolts	20 00	Laborers or unskilled workmen	9 00
Forgers of nuts	15 00	Apprentices or boys	5 33
Polishers	18 00	Foremen or overseers	21 40
Turners	15 00	Close platers	13 50
Machinists	18 75	Electro platers	21 00
Die sinkers	30 00	Blacksmiths	19 25
Press workmen	13 50	Helpers	13 50
Spring-roller maker	21 00	Metal spinners	27 00
Metal workers	19 50	Hammer men	18 00
Brass finishers	18 00	Finishers	15 00
Coach-lamp makers	22 50		

Hours of labor per week, 60.

LEATHER.

Average weekly wages paid to persons employed in the manufacture of leather in the United States, in the year 1869.

Occupation.	New Hampshire.	Pennsylvania.	Maryland.	Ohio, Wisconsin, Michigan, and Indiana.	General average.
<i>Sole-leather.</i>					
Tanners	\$11 50	\$11 33	.....	\$12 83	\$11 88
Beam hands .....	.....	10 42	\$14 00	10 73	11 72
Yard hands .....	.....	10 25	12 00	9 52	10 59
Rollers and spongers .....	.....	10 33	12 00	11 25	11 19
Bark grinders	9 00	7 80	11 00	8 33	9 02
Common laborers .....	.....	9 50	11 00	9 57	10 02
<i>Upper leather and calf-skins.</i>					
Tanners	11 00	10 00	10 00	9 67	10 17
Carriers .....	.....	12 00	15 00	12 94	13 31
Splitters .....	.....	.....	.....	15 37	15 37
Shavers .....	.....	18 00	15 00	16 75	16 58
Table hands, scourers .....	.....	12 00	12 00	9 90	11 50
Blackers .....	.....	.....	.....	11 50	11 50
Finishers .....	.....	12 00	15 00	13 50	13 50

Hours of labor per week, 60.

SADDLERY AND HARNESS.

Table showing the average weekly earnings of persons employed in the manufacture of saddlery and harness in the year 1869.

Occupation.	Vermont.	Ohio.	Wisconsin.	Missouri.	General average.
Harness-fitters	\$13 00	.....	\$10 12	\$14 00	\$12 38
Harness-stitchers	10 00	.....	.....	.....	10 00
Apprentices under instruction	8 00	.....	.....	.....	8 00
Saddle-makers .....	.....	\$17 00	.....	16 00	16 50
Harness-makers .....	.....	14 00	.....	.....	14 00
Apprentices or boys .....	.....	6 00	.....	4 50	5 25
Foremen or overseers .....	.....	.....	.....	25 00	25 00

Hours of labor per week, 60.

GAS-WORKS.

Table showing the average rates of weekly wages or earnings of persons employed in gas factories in the cities of New York and Philadelphia and in the States of Delaware, Virginia, and Ohio, in the year 1869.

Occupation.	City of New York.	City of Philadelphia.	Delaware and Virginia.	Ohio.	General average.
Firemen.....	\$21 00	\$19 16	\$11 00	\$13 75	\$16 20
Second-men.....	17 50	18 25	12 00	11 80	14 89
Yard-men.....	15 75	10 20	9 00	9 68	11 16
Purifiers.....	17 50	14 00	9 32	11 75	13 15
Carpenters.....	27 00	15 00		18 00	20 00
Masons.....	30 00			24 00	27 00
Blacksmiths.....	18 00	18 00		15 00	17 00
Pipe-layers.....	15 00	11 40	17 50	15 00	14 72
Gas-fitters.....	15 00	12 00		16 77	14 66
Lamplighters.....	8 00	6 54		12 03	8 86
Meter-tenders.....			12 50		12 50
Book-keepers.....			16 00	20 00	18 00
Engineers.....	19 25			36 53	27 98
Laborers.....	12 00			10 50	11 25
Apprentices and boys.....				6 75	6 75
Foremen and overseers.....	24 00	15 20	20 00	25 00	21 05
Hours of labor.....	60	67	76	77	72½

MISCELLANEOUS OCCUPATIONS.

Table showing the average weekly wages or earnings of persons employed in the following occupations in the year 1869.

Artificial limbs factory, Massachusetts:		Candy, Maryland:	
Fitters, adjusters.....	\$18 00	Hands in factory.....	\$8 50
Steel-workers.....	20 00	Cars, Pennsylvania:	
Leather-workers.....	19 00	Smiths.....	11 25
First-class mechanics.....	19 50	Helpers.....	9 75
Bakery and confectionery, Ohio:		Carpenters.....	10 50
Bakers, first class.....	12 00	Engineer.....	12 00
Bakers, second class.....	7 00	Foreman.....	13 87
Confectioners, first class.....	7 00	Laborers.....	9 00
Confectioners, second class.....	4 00	Boys.....	5 00
Barytes works, Missouri:		Car-wheels, Ohio:	
Millers.....	20 00	Molders.....	24 00
Carpenters.....	18 00	Molders, helpers.....	13 50
Coopers.....	12 00	Melters.....	18 50
Blacksmith.....	12 00	Carpenters.....	15 00
Wagon-maker.....	12 00	Engineer.....	12 00
Engineer.....	15 00	Laborers.....	11 28
Fireman.....	11 00	Boys.....	8 70
Foreman.....	25 00	Car-roofing, Ohio:	
Workmen.....	9 00	Engineer.....	12 00
Blocks, pumps, and spars, Ohio:		Foreman.....	18 00
Block and spar workers.....	12 00	Workmen.....	12 00
Helpers.....	9 00	Card clothing, Massachusetts:	
Apprentices.....	5 00	Apprentices.....	13 00
Engineer.....	12 00	Girls.....	9 00
Book-binding, Ohio:		Hands in leather-room.....	18 00
Finisher.....	12 00	Chemicals, New Jersey:	
Ruler.....	12 00	Foreman.....	11 00
Girls, sewers.....	4 00	Workmen.....	9 00
Boys.....	3 00	Boys.....	6 00
Foreman.....	16 50	Cloak and dress making, Ohio:	
Brick-making, Western States:		Cloak-makers.....	4 50
Brick molders.....	12 60	Overseers, women.....	16 50
Temperers.....	10 75	Colors, paints, &c., Maryland:	
Wheelers.....	11 00	Color-makers.....	12 00
Off-bearers.....	6 33	Sand-paper makers.....	25 00
Setters.....	18 00	Laborers.....	9 00
Laborers or unskilled workmen.....	8 93	Cooper shops, Western States:	
Apprentices or boys.....	5 87	Coopers.....	12 99
Buttons, Connecticut:		Machine hands.....	14 25
Engineer.....	12 00	Teamsters.....	11 00
Foreman.....	17 00	Laborers or unskilled workmen.....	9 75
Workmen.....	11 50	Apprentices or boys.....	3 35
Girls.....	4 00		

Miscellaneous occupations—Continued.

Coffins, Ohio:		India-rubber goods, Mass.—Continued.	
Engineer	\$14 00	Spoolers	\$5 60
Cabinet makers, first-class	18 00	Braiders	5 22
Cabinet-makers, second-class	15 00	Finishers	5 06
Finishers, first-class	16 50	Watchmen	13 35
Finishers, second-class	8 00	Carpenters	15 10
Ordinary workmen	9 00	Inspectors	14 70
Distillery, Maryland:		Firemen	13 35
Coopers	15 00	Preparing rubber	4 97
Millers	18 00	Dyers of cotton yarns	8 50
Still men	20 00	Packers	5 43
Engineer	20 00	Rubber hose, belting, &c	9 38
Laborers	10 00	Cutters	11 21
Foreman	50 00	Calender men	9 14
Drug-grinding, Massachusetts:		Calender boys	4 00
Engineer	12 00	Shrinkers	9 55
Laborers	9 00	Mill hands	9 00
Foreman	12 00	Curers	13 50
Felt hats, Massachusetts and New Jersey:		Girls at piece work	8 00
Body-makers	12 66	Engineers	19 65
Finishers	16 57	Laborers	11 73
Blockers	16 02	Apprentices or boys	5 45
Stiffeners	18 50	Foremen or overseers	20 15
Trimmers, (females)	5 09	Unskilled workmen	10 30
Dyers	15 00	Skilled workmen	12 00
Laborers or unskilled workmen	8 51	Ink, Ohio:	
Apprentices	5 66	Foreman	8 00
Boys	5 05	Bottling and labeling, girls	4 70
Flax-spinning, Ohio:		Iron steam forge, Missouri:	
Hacklers	12 00	Hammersmiths	27 00
Spinners, girls	5 00	Helpers on hammers	13 00
Card-feeders, girls	5 00	Furnace men, heaters	27 00
Weavers, women	6 80	Firemen for furnaces	13 50
Calendering	13 00	Blacksmiths	20 00
Spreaders, girls	5 50	Helpers for same	13 00
Engineer	18 00	Engineers, first-class	24 00
Foremen	13 40	Engineers, second-class	15 00
Laborers	8 73	Pattern-maker and millwright	21 00
Flour-mills, Eastern States:		Laborers	10 00
Millers	14 00	Apprentices	9 00
Coopers	15 50	Foreman	27 00
Engineers	21 00	Machinist, ordinary	15 00
Firemen	13 50	Watchmen	15 00
Foremen	16 00	Iron fence, Ohio:	
Teamsters	9 75	Molders	15 00
Laborers	9 00	Fence-builders	13 20
Glassworks, New England:		Painters	12 00
Glass-blowers	24 00	Engineers	12 00
Glass-cutters	18 00	Apprentices or boys	3 75
Carpenters	16 11	Foremen or overseers	18 00
Watchmen	10 50	Iron furnace, (charcoal), Maryland:	
Blacksmiths	12 75	Keeper	10 50
Pot-makers	16 50	Guttermen	9 00
Pot-makers' assistants	9 75	Fillers	11 00
Packers	10 50	Ore-breaker	8 00
Demijohn-coverers	12 00	Ore-wheeler	8 50
Batch-mixers	13 50	Coal-raker	11 00
Master teasers	13 50	Foreman	32 00
Leechers	9 00	Engineer	23 00
Pressmen	9 00	Jute manufactory, New Jersey:	
Liersman	14 00	Carders	5 30
Engineers	11 75	Spinners	5 47
Laborers or unskilled workmen	8 49	Dyers	9 43
Apprentices or boys	4 00	Bleachers	10 00
Foremen or overseers	22 00	Packers	8 36
Glycerine and vinegar, Ohio:		Dressers	6 43
Engineer	15 00	Weavers	6 22
Coopers	15 00	Lead-mining and smelting, Missouri:	
Foremen	18 00	Engineers	21 00
Workmen	12 50	Smelters	15 00
Hair-cloth, Rhode Island:		Breaker	12 00
Weavers, women	8 40	Laborers	9 00
Laborers	11 00	Lead-smelting, Missouri:	
Engineers	11 00	Smelters	16 30
Foreman	14 70	Back hands	9 00
Boys	6 60	Engineer	15 00
Hoop-skirts, Massachusetts and Pennsylvania:		Woodchoppers	6 00
Repairing	6 00	Miners	15 00
Sales women	7 50	Teamsters	10 00
Operators on sewing machines	5 00	Colliers	18 00
Skirt-makers	2 50	Foreman or overseer	30 00
India-rubber goods, Massachusetts:		Lead works, Boston, Massachusetts:	
Weavers of gusset web	13 30	Workmen	12 00
Weavers of suspenders	7 00	Engineers	12 30
		Leather-board mill, Massachusetts:	
		Engineer	12 00

Miscellaneous occupations—Continued.

Leather board mill, Massachusetts— Continued.		Paper-hangings, New Jersey—Cont'd.	
Laborers	\$9 00	Boys and girls	\$5 00
Boys	7 50	Color-makers	16 00
Leather bag factory, New Jersey, Ohio, and Missouri:		Engineer, (machinist)	21 00
Japanners	15 00	Laborers	8 00
Varnishers	18 33	Pottery and earthenware, New Jersey:	
Grainers	18 50	Kiln or oven-men	15 00
Printers	19 00	Jigger-men	20 00
Pressmen	12 00	Handlers	15 00
Girls	5 80	Pressers	15 00
Boys	6 00	Apprentices	5 00
Lightning rods, Missouri:		Dippers	14 00
Forgers	12 50	Mold-makers	15 00
Twisters	10 50	Molders	18 00
Screw-cutters	10 00	Laborers	10 00
Helpers	10 00	Foremen	18 00
Lime burning, Kentucky:		Boys	3 00
Coopers	24 00	Pins, Connecticut:	
Laborers	13 00	Foremen	24 00
Foreman	11 60	Pin-makers	18 00
Marble, Massachusetts, Maryland, and Western States:		Wire-straighteners	12 00
Cutters	19 30	Whiteners	15 00
Carvers	23 00	Machinists and repairers	16 50
Rubbers	10 62	Girls	6 00
Polishers	11 50	Patent medicines, Ohio:	
Letterers	17 00	Clerks	17 33
Teamsters	10 00	Printers	20 00
Soapstone cutters	23 50	Laborers	4 72
Engineers	16 50	Pegs and lasts, Ohio:	
Apprentices or boys	5 53	Engineers	12 00
Foremen	24 00	Laborers	9 00
Match splint factory, Wisconsin:		Boys	3 25
Machine tenders, boys	6 00	Picture frames, Ohio:	
Straightening splints, boys	4 25	Gilders	15 00
Packing, boys	5 00	Carpenters	12 00
Laborers, men	9 00	Boys	2 50
Meat packing, Missouri:		Ratons, Massachusetts:	
Butchers	15 00	Laborers	10 50
Coopers	18 00	Boys	4 50
Laborers	13 00	Foremen	19 50
Engineers	20 00	Watchmen	14 00
Moldings, &c., Maryland:		Girls	7 00
Carpenters	15 00	Railroad machine-shop, Ohio:	
Cabinet-makers	14 00	Machinists, first class	16 38
Turners	14 50	Machinists, second class	14 25
Sawyers	15 50	Engineers, first class	20 80
Molders	16 00	Engineers, second class	15 12
Planers	17 50	Firemen, first class	11 52
Mortisers	12 50	Firemen, second class	10 38
Net and twine factory, Connecticut:		Laborers	9 75
Overseer	20 00	Coppersmiths	16 62
Assistant	18 00	Tinsmiths	13 44
Card stripper	7 50	Painters	13 23
Pickers, boys	7 00	Foremen	22 50
Spinners, boys	5 00	Carpenters	14 88
Spoolers, boys	4 00	Blacksmiths	13 38
Twisters, boys	4 40	Roofing paint, Ohio:	
Packers, men	12 25	Overseer	22 00
Netting weavers, girls	5 67	Engineer	18 00
Machinist	16 38	Workmen	12 00
Oak cooperage, Missouri:		Rope-mills, Ohio:	
Coopers	15 00	Spinners	9 00
Engineer	15 00	Boys	2 25
Foremen	18 00	Foremen	18 00
Laborers	11 00	Sails, Maryland and Ohio:	
Boys	4 00	Sailmakers	18 00
Pocket-books, Massachusetts:		Salt, Michigan:	
Engineer	16 50	Engineers	15 00
Laborers	12 00	Boilers	13 50
Boys	4 50	Firemen	12 00
Foremen	18 00	Teamsters	13 50
Skilled workmen	15 00	Laborers	10 50
Girls, in summer	7 50	Scales, Maryland:	
Girls, in winter	6 00	Scale-makers	15 00
Paper-hangings, New Jersey:		Laborers	10 00
Foremen	35 00	Boys	5 00
Block-cutters	20 00	Foremen	19 00
Machine-printers	19 66	Screens, Pennsylvania:	
Grounders	13 00	Blacksmith	15 80
Flockers	25 00	Helper	9 50
Water-color painters	20 00	Laborers	10 50
Bungers	24 00	Boys	5 00
		Ship-building, Connecticut and Missouri:	
		Shipwrights	18 00
		Smiths	13 00

Miscellaneous occupations—Continued.

Shipbuilding, Connecticut and Missouri—Continued.		Trunk-making, Newark, N. J.—Cont'd.	
Calkers	\$19 50	Laborers or unskilled workmen	\$9 00
Joiners	18 00	Apprentices or boys	3 50
Laborers	9 50	Type-founding, New York:	
Foremen	24 00	Type-casters	11 50
Silverware, Rhode Island:		Dressers	12 00
Engravers	20 50	Breaking type, (boys)	5 00
Chasers	20 50	Rubbing type, (girls)	6 50
Burnishers	16 50	Setting type, (girls)	8 92
Polishers	13 25	Type-founders	20 00
Molders	19 50	Apprentices	4 45
Stampers	16 50	Finishers	18 00
Engine-turners	17 50	Other workmen	11 37
Die-sinkers	26 00	Lithographers	35 37
Electro-platers	12 50	Lithographic printers	37 56
Spinners	19 25	Letter-press printers	18 25
Machinists	18 50	Varnish, Ohio:	
Carpenters	18 75	Foremen	20 00
Rollers	13 50	Laborers	11 00
Turners	19 25	Wooden-ware, Massachusetts:	
Plate-workers	17 75	Foremen	18 00
Electro-plate workers	18 00	Laborers	10 00
Spoon and fork makers	18 00	Mechanics	12 00
Foremen	31 75	Boys	8 00
Slippers, Massachusetts:		Watches, Ohio:	
Lasters	9 00	Cutter	13 50
Finishers	8 00	Engineer	13 00
Sole-cutters	15 00	Workmen	19 00
Sewers	15 00	Apprentices	3 00
Sewing-machine operators	8 50	Foreman	20 00
Stitchers	6 00	Wheelbarrows, Michigan:	
Overseer	15 00	Blacksmiths	10 50
Stone-cutting, Ohio and Michigan:		Painters	9 00
Stone-cutters	21 00	Sawyers	10 50
Laborers	9 00	Laborers	8 50
Apprentices	4 00	Whips, Pennsylvania:	
Starch, Ohio:		Stock-makers	12 00
Box-makers	9 00	Wagon-whip makers	9 00
Millers	9 00	Bradders	10 50
Carpenters	12 75	Finishers	9 00
Scraping-room	8 23	Button-workers, (females)	9 00
Teamsters	9 00	Tanners	12 00
Laborers	8 94	Foremen	16 50
Boys	5 70	Wheels and wagons, Wisconsin:	
Stoves, Ohio:		Machinists	13 50
Sheet-iron worker	25 00	Blacksmiths	15 00
Tinners	16 50	Painters	12 00
Apprentices	5 00	Wood-workers	15 00
Skilled workmen	16 50	Laborers	9 00
Unskilled workmen	12 00	Apprentices	4 50
Painters	14 00	White lead and linseed oil, Missouri:	
Stove patterns, Ohio:		Coopers	14 00
Pattern-makers	20 00	Firemen	17 50
Carpenters	16 00	Pressmen	13 50
Pattern-filer	12 00	Mill hands	19 25
Laborers	9 00	Oil-refiners	20 00
Sugar plantation, Louisiana:		Lead-melters	14 00
Men	5 50	Engineer	18 50
Women	3 60	Laborers	10 00
Boys	2 50	Boys	4 00
Laborers	6 00	Foreman	24 00
Overseer	24 00	Wool carding, Kentucky:	
Sugar-refining, Portland, Maine:		Millers	10 50
Boilers	12 00	Carders	10 00
Panmen	12 00	Wood-choppers	6 00
Warehouse-men	9 80	Other laborers	5 00
Upstairs-men	9 80	Zinc works, New Jersey:	
Coopers	15 00	Zinc furnacemen	12 00
Blacksmiths	16 50	Bag-room	11 38
Engineers	17 25	Packers and shippers	10 50
Laborers or unskilled workmen	10 50	Tinsmiths	16 25
Foremen or overseers	12 00	Tin-helpers	14 62
Tar-buckets, Ohio:		Carpenters	17 25
Wood-turners	18 54	Pattern-makers	21 00
Coopers	15 49	Blacksmiths	15 15
Wood-sawyers	13 50	Machinists	19 00
Laborers	10 60	Blast-firemen	12 60
Apprentices	6 53	Weghers	15 05
Trunk-making, Newark, New Jersey:		Masons	20 42
Trunk-makers	16 00	Engineers	16 25
Bag-makers, (men)	20 00	Laborers or unskilled workmen	10 06
Bag-makers, (women)	8 00	Apprentices or boys	5 56
Box-makers, (men)	15 00	Foremen or overseers	16 45
Box-makers, (boys)	9 00	Fonderymen	19 50
		Teamsters	10 83

MECHANICAL LABOR.

Table showing the average daily wages paid in the several States and sections to persons employed in the undermentioned trades in the year 1870.

States.	Bricklay- ers or masons.		Cabinet- makers.		Carpen- ters.		Coopers.		Painters.		Plasterers.		Shoe- makers.		Stone- cutters.		Tailors.		Tanners.		Tinsmiths.		Wheel- wrights.		
	With board.	Without board.	With board.	Without board.	With board.	Without board.	With board.	Without board.	With board.	Without board.	With board.	Without board.	With board.	Without board.	With board.	Without board.	With board.	Without board.	With board.	Without board.	With board.	Without board.	With board.		
NEW ENGLAND STATES.																									
Maine.....	\$2.52	\$2.75	\$2.82	\$3.06	\$2.21	\$2.71	\$1.93	\$2.43	\$2.17	\$2.67	\$2.22	\$2.64	\$3.28	\$2.00	\$2.46	\$2.84	\$3.41	\$2.83	\$2.64	\$2.09	\$2.64	\$1.94	\$2.50	\$2.09	\$2.75
New Hampshire.....	1.50	3.06	3.06	3.69	2.01	2.56	3.13	2.63	3.44	3.17	3.42	3.00	2.75	3.25	2.08	2.58	3.18	2.18	2.67	2.33	2.81	2.33	2.83	2.18	2.67
Vermont.....	2.38	2.88	2.94	3.56	2.01	2.56	3.17	2.63	3.44	3.17	3.42	3.00	2.75	3.25	2.08	2.58	3.18	2.18	2.67	2.33	2.81	2.33	2.83	2.18	2.67
Massachusetts.....	2.44	2.95	3.35	3.90	2.25	2.75	3.25	3.73	3.19	2.31	2.84	3.32	3.84	2.15	2.65	3.05	3.58	1.96	2.48	2.25	2.75	2.09	2.56	2.49	3.01
Rhode Island.....	2.00	2.50	2.50	3.00	2.75	3.25	3.00	2.50	2.50	2.25	2.75	2.50	3.00	1.75	2.25	3.00	3.50	1.50	2.00	2.25	2.75	2.50	3.00	2.50	3.00
Connecticut.....	2.42	2.92	3.00	3.52	2.50	3.00	2.50	3.00	2.50	2.42	2.92	2.92	3.42	1.75	2.25	3.13	3.63	1.83	2.45	2.25	2.75	2.33	2.83	2.50	3.00
MIDDLE STATES.																									
New York.....	2.23	2.74	3.10	3.64	2.01	2.74	3.30	3.10	2.16	2.66	2.50	3.01	3.72	1.77	2.30	3.37	3.87	1.99	2.47	2.24	2.74	2.28	2.78	2.46	2.95
New Jersey.....	1.00	2.00	2.30	2.80	1.81	2.35	2.80	2.75	1.85	2.35	2.35	2.10	2.65	2.46	1.80	2.30	3.50	3.00	2.05	2.55	2.05	2.55	1.75	2.25	2.30
Pennsylvania.....	1.86	2.43	2.43	3.00	1.67	2.19	1.61	2.08	2.00	2.59	1.98	2.52	2.26	3.15	1.49	2.04	3.24	1.51	2.07	1.58	2.08	1.52	2.07	1.76	2.27
Delaware.....	2.00	2.50	3.50	4.00	2.00	2.50	2.85	2.75	2.00	2.50	2.00	2.50	2.50	3.50	1.70	2.20	4.00	4.50	1.50	2.00	2.00	2.50	2.00	2.50	2.54
Maryland.....	1.71	2.21	3.00	3.50	1.92	2.42	1.93	2.43	1.75	2.25	2.21	2.70	2.50	3.58	1.70	2.20	3.25	3.75	1.75	2.25	2.10	2.60	1.75	2.25	2.04
West Virginia.....	1.99	2.48	2.46	3.03	1.97	2.46	1.86	2.35	2.12	2.64	2.21	2.70	2.61	3.15	1.79	2.25	3.25	3.11	1.68	2.20	1.63	2.10	1.94	2.48	2.10
WESTERN STATES.																									
Ohio.....	1.04	2.48	2.93	3.37	1.91	2.38	2.17	2.73	1.82	2.30	2.00	2.71	2.97	3.57	1.72	2.30	3.65	3.17	1.78	2.28	1.94	2.45	1.90	2.42	2.73
Indiana.....	2.11	2.60	3.09	3.61	2.06	2.55	2.33	2.83	1.90	2.41	2.20	2.78	2.97	3.57	1.72	2.34	3.65	3.17	1.82	2.32	1.86	2.35	1.94	2.42	2.73
Illinois.....	2.20	2.79	3.28	3.80	2.12	2.60	2.98	3.48	1.93	2.44	2.20	2.80	3.29	3.81	1.83	2.34	3.20	3.51	1.82	2.32	1.86	2.35	1.94	2.42	2.73
Michigan.....	2.26	2.79	3.28	3.80	2.12	2.67	2.98	3.48	1.93	2.44	2.20	2.80	3.29	3.81	1.83	2.34	3.20	3.51	1.82	2.32	1.86	2.35	1.94	2.42	2.73
Wisconsin.....	2.26	2.79	3.28	3.80	2.12	2.67	2.98	3.48	1.93	2.44	2.20	2.80	3.29	3.81	1.83	2.34	3.20	3.51	1.82	2.32	1.86	2.35	1.94	2.42	2.73
Minnesota.....	2.26	2.79	3.28	3.80	2.12	2.67	2.98	3.48	1.93	2.44	2.20	2.80	3.29	3.81	1.83	2.34	3.20	3.51	1.82	2.32	1.86	2.35	1.94	2.42	2.73
Iowa.....	2.26	2.79	3.28	3.80	2.12	2.67	2.98	3.48	1.93	2.44	2.20	2.80	3.29	3.81	1.83	2.34	3.20	3.51	1.82	2.32	1.86	2.35	1.94	2.42	2.73
Nebraska.....	2.26	2.79	3.28	3.80	2.12	2.67	2.98	3.48	1.93	2.44	2.20	2.80	3.29	3.81	1.83	2.34	3.20	3.51	1.82	2.32	1.86	2.35	1.94	2.42	2.73
Kansas.....	2.26	2.79	3.28	3.80	2.12	2.67	2.98	3.48	1.93	2.44	2.20	2.80	3.29	3.81	1.83	2.34	3.20	3.51	1.82	2.32	1.86	2.35	1.94	2.42	2.73
North Dakota.....	3.00	3.50	3.48	4.25	3.12	3.75	3.25	3.88	3.00	3.62	3.50	4.00	3.38	3.95	2.73	3.43	3.88	3.63	3.36	3.00	3.50	3.25	3.75	3.13	3.88

* Piece work.

* Piece work.

FARM LABOR.

Table showing the average daily wages, with and without board, and the average monthly wages, with board, paid for farm and other labor in the several States and sections in the year 1870.

STATES.	DAILY WAGES.						MONTHLY WAGES WITH BOARD.					
	Experienced hands in summer.		Experienced hands in winter.		Com'n laborers at other than farm work.		Experienced hands in summer.	Experienced hands in winter.	Ordinary hands in summer.	Ordinary hands in winter.	Common laborers at other than farm work.	Female servants.
	With board.	Without board.	With board.	Without board.	With board.	Without board.						
NEW ENGLAND STATES.												
Maine	\$1 59	\$2 14	\$1 67	\$1 54	\$1 19	\$1 54	\$27 55	\$22 00	\$20 67	\$17 67	\$19 11	\$10 89
New Hampshire	1 63	2 12	1 44	1 75	1 31	1 81	23 50	18 25	19 00	12 66	17 00	11 12
Vermont	1 50	2 00	1 12	1 14	1 19	1 44	23 00	21 25	23 00	17 00	22 50	10 50
Massachusetts	1 49	1 99	1 09	1 53	1 15	1 60	29 36	22 60	24 10	18 60	26 50	10 20
Rhode Island	1 00	1 50	75	1 25	1 00	1 50	22 00	18 00	18 00	18 00	20 00	12 00
Connecticut	2 00	2 50	1 25	2 08	1 67	2 17	28 33	17 00	19 33	14 33	23 33	10 50
MIDDLE STATES.												
New York	1 42	1 87	1 06	1 54	1 19	1 67	24 58	19 12	19 88	15 46	20 10	9 55
New Jersey	1 63	2 14	1 00	1 72	1 37	1 64	24 67	15 83	19 33	12 80	18 80	8 83
Pennsylvania	1 35	1 83	1 00	1 47	1 17	1 16	25 40	17 75	18 57	14 80	20 07	7 88
Delaware	1 50	2 00	1 00	1 25	1 00	1 56	20 00	12 00	15 00	9 00	16 00	8 00
Maryland	93	1 32	67	1 04	55	75	14 43	11 00	11 71	9 21	11 50	7 83
West Virginia	1 06	1 42	76	1 13	56	90	21 53	16 23	16 00	13 46	20 67	6 36
WESTERN STATES.												
Ohio	1 23	1 66	85	1 25	70	1 00	22 67	17 38	17 23	13 04	18 00	8 52
Indiana	1 23	1 50	89	1 32	70	1 04	23 33	18 51	18 48	15 03	21 38	9 11
Illinois	1 31	1 83	94	1 36	73	1 11	24 53	18 14	19 03	15 00	22 45	9 45
Michigan	1 30	1 79	98	1 39	74	1 13	23 29	18 75	18 50	13 77	20 28	9 91
Wisconsin	1 40	1 81	94	1 34	73	1 10	25 02	17 68	16 70	14 60	20 42	8 85
Minnesota	2 00	2 50	1 17	1 67	103	1 49	29 11	20 11	20 55	15 89	22 89	6 98
Iowa	1 49	1 97	1 03	1 46	76	1 18	24 88	18 39	18 85	14 04	21 10	9 31
Kansas	1 33	1 96	1 04	1 50	84	1 30	33 33	20 63	19 67	14 83	23 50	9 50

Nebraska.....	1 63	2 95	1 13	1 75	1 25	1 88	1 00	1 50	1 50	2 13	25 00	20 00	20 25	16 00	21 50	14 50
Missouri.....	1 14	1 52	84	1 17	82	1 14	65	90	98	1 48	23 40	18 30	17 00	14 45	21 80	7 55
Kentucky.....	1 00	1 45	81	1 10	84	1 15	64	92	1 04	1 39	20 21	16 35	15 29	12 58	19 27	8 07
SOUTHERN STATES.																
Virginia.....	85	1 23	63	93	63	97	50	77	72	1 01	13 26	9 54	10 09	7 81	11 98	5 48
North Carolina.....	68	93	53	77	48	70	41	59	60	82	12 80	9 80	9 10	7 00	11 70	5 00
South Carolina.....	62	94	50	75	53	78	48	70	80	1 01	11 67	10 30	10 67	9 67	12 00	7 40
Georgia.....	78	1 07	64	90	68	81	43	50	81	1 09	14 50	11 44	11 89	8 75	14 14	6 95
Florida.....	75	1 00	75	75	75	75	47	45	81	1 21	14 00	14 00	10 00	10 00	16 00	7 00
Alabama.....	75	1 09	63	94	61	88	47	73	91	1 21	16 00	14 54	11 64	9 21	16 85	8 31
Louisiana.....	1 03	1 39	94	1 34	69	1 11	66	1 00	1 25	1 70	20 66	16 90	15 25	12 56	19 70	10 05
Texas.....	90	1 21	75	1 07	69	1 00	61	91	93	1 27	18 50	15 40	14 60	13 00	16 30	8 50
Mississippi.....	95	1 45	73	1 15	75	1 30	59	97	95	1 45	18 58	14 50	14 67	10 83	17 00	10 43
Arkansas.....	1 07	1 54	86	1 18	84	1 14	62	94	1 01	1 39	18 88	16 30	14 80	11 00	17 70	9 86
Tennessee.....	1 00	1 37	73	98	72	1 01	50	74	80	1 15	18 32	14 36	13 98	10 65	15 26	6 62
PACIFIC STATES.																
California.....	2 11	2 69	1 50	2 06	1 52	2 15	1 92	1 70	1 78	2 31	49 69	33 89	30 53	26 61	34 81	27 89
Nevada.....	2 33	3 00	1 67	2 33	1 83	2 37	1 59	2 17	2 18	3 00	53 33	30 75	30 00	30 00	40 00	33 33
Oregon.....	1 75	2 25	1 25	1 62	1 25	1 75	94	1 45	1 50	2 12	35 73	30 75	28 25	23 25	30 00	23 75
TERRITORIES.																
Washington.....	2 50	3 00	1 38	2 12	1 88	2 37	1 00	1 50	1 88	2 50	40 00	30 00	37 50	23 00	35 00	22 00
Colorado.....	2 11	2 86	1 42	2 13	1 68	2 46	1 25	1 82	1 82	2 50	39 75	28 57	33 00	22 75	36 43	25 05
Dakota, (1869).....	2 57	3 18	1 46	2 15	1 94	2 75	2 00	2 75	2 21	3 00	40 00	27 50	33 00	25 00	40 00	20 00
Idaho, (1869).....	2 83	3 25	1 50	2 00	2 00	2 25	1 50	2 00	2 50	3 50	70 00	43 33	55 00	35 00	73 33	40 00
Arizona.....	2 50	3 08	1 92	2 41	1 75	2 33	1 33	1 92	2 25	3 25	60 00	33 33	41 67	25 00	60 00	40 00
Montana, (1869).....	5 00	6 00	3 00	4 00	4 00	5 00	2 50	3 25	5 00	6 00	76 00	35 00	57 50	25 00	70 00	50 00
New Mexico.....	1 00	1 50	75	1 25	75	1 50	50	1 00	1 00	1 50	30 00	20 00	25 00	20 00	25 00	10 00

RECAPITULATION.

UNITED STATES, EXCLUSIVE OF PACIFIC STATES AND TERRITORIES.																
New England.....	\$1 54	\$2 04	\$1 09	\$1 55	\$1 30	\$1 63	\$0 92	\$1 24	\$1 25	\$1 68	\$26 46	\$19 85	\$20 70	\$16 38	\$21 41	\$10 87
Middle States.....	1 32	1 76	92	1 36	95	1 36	68	1 08	1 06	1 48	21 77	13 32	16 75	12 45	17 86	8 08
Western States.....	1 37	1 84	97	1 40	1 03	1 43	77	1 13	1 17	1 64	24 07	18 14	18 33	14 48	21 12	9 43
Southern States.....	86	1 20	69	92	57	94	53	70	88	1 16	10 11	13 35	12 44	10 07	15 32	7 79
General average.....	1 27	1 71	92	1 31	94	1 35	73	1 06	1 09	1 49	22 10	16 79	17 06	13 34	18 92	9 04
PACIFIC STATES AND TERRITORIES.																
Pacific States, (in gold).....	\$2 06	\$2 65	\$1 47	\$2 00	\$1 53	\$2 16	\$1 25	\$1 77	\$1 82	\$2 48	\$43 92	\$34 88	\$32 93	\$26 02	\$34 04	\$27 99
Territories, (in gold).....	2 64	3 28	1 63	2 31	2 00	2 67	1 44	2 69	2 38	3 18	50 82	31 10	39 52	25 45	48 50	29 58
General average.....	2 35	2 97	1 55	2 16	1 77	2 42	1 35	1 93	2 10	2 83	47 37	32 99	36 23	26 04	41 72	29 29

AGRICULTURAL WAGES IN MASSACHUSETTS.

[From the second annual report of the Bureau of Statistics of Labor of Massachusetts.]

Counties.	Wages per month with board.			Wages per month without board.		
	Men.	Women.	Young persons.	Men.	Women.	Young persons.
Berkshire.....	\$25 to \$100	\$12 to \$10	\$18 to \$8	\$45 to \$40	\$30 to \$18	\$32 to \$20
Essex.....	30 to 25	14 to 12	12	48 to 40	25	25 to 18
Franklin.....	30 to 20	12 to 8	25 to 10	60 to 40	37 to 25	50 to 25
Hampden.....	26 to 20	.....	.....	40	.....	.....
Hampshire.....	30 to 20	.....	.....	45 to 30	.....	.....
Middlesex.....	20 to 15	12	12 to 10	50 to 30	30 to 25	27 to 25
Norfolk.....	35 to 20	16 to 12	20 to 12	52 to 35	.....	30 to 25
Plymouth.....	40	.....	.....	60	.....	.....
Worcester.....	40 to 25	14 to 10	20 to 10	50 to 35	25 to 18	27 to 14

The returns of the United States Census for 1870 give the average wages paid farm hands, with board, in the State, as \$20 52.

To understand what these wages represent, the condition of farm labor must be stated. Men are hired by the season, or from April to November.

The earnings of permanent help, calling the average wages \$25, and board \$15 per month, give a total of \$40, which, as the average amount paid men without board, would amount for the year of eight months to \$320. In the other months, work is sought in the manufacturing towns, or in general labor, cutting wood, or getting in ice, &c.

Women's wages, as given in the second column, are undoubtedly given for general house and dairy work. The wages paid to field-women are not given; they receive two-thirds of a man's pay.

The returns of children's wages are too meager to tabulate. When given, they vary from \$10 to \$5 per month, with board, and from \$15 to \$12 per month, without board. As large farms multiply, children are in greater demand.

In the cultivation of tobacco, boys are employed to a great advantage; many of the small farms in Worcester County being worked with boys.

The change in nationality has been going on quite rapidly on the farms as well as in the factories. *"It is a very rare thing to find an active, intelligent person of American parentage employed as a hired farm laborer."* The Irish seem to predominate, though the French Canadians are gaining a footing. * * * The greatest drawback to farming in this vicinity is the extreme difficulty in procuring reliable help. * * * We need more labor in summer for the raising of more hoed crops, and we can use it in winter in getting out wood, lumbering, and in the ice trade. The young men of New England, but more especially of Massachusetts, tire of such monotonous labor, and seek either broader acres in the West, or a more circumscribed limit behind the counter or in the counting-room. Now, their places on the farm must be filled. A foreign supply is the only alternative, and Ireland is the most prolific source. * * * Agricultural machinery is being employed extensively, in consequence of the cost and quality of manual labor. It does not reduce the wages of competent and efficient laborers. Skilled, faithful labor is not increased, but is rendered more valuable in consequence of machinery.

The deputy superintendent, in charge of the labor bureau of the New York Commissioners of Emigration, makes the following

REPORT ON WAGES,

obtained by the immigrants in New York and vicinity.

The average wages paid for farm hands and female servants varied considerably during the year, as the following statement will show:

Month.	Per month and board.	
	Males.	Females.
January	\$9 25	\$9 00
February	13 25	9 25
March	14 75	9 75
April	16 75	10 00
May	17 75	10 25
June	20 75	10 25
July	19 00	10 00
August	15 25	10 00
September	14 00	10 00
October	11 50	10 00
November	10 50	9 75
December	9 00	9 75

The wages of common laborers varied from \$1 50 to \$2 per day without board.

The wages paid for skilled labor cannot be exactly specified, as the workmen make their own contracts with the employers, who regulate the price according to ability and season, as the following table will show:

Occupation.	Wages offered.
Apprentices	\$4 to \$5 per week without board.
Bakers	\$6 to \$14 per month with board.
Barbers	\$9 to \$15 per week without board.
Brush-makers	\$2 to \$2 50 per day without board.
Bar-keepers	\$10 to \$30 per month with board.
Basket-makers	\$15 to \$18 per week without board.
Blacksmiths	\$2 to \$3 50 per day without board.
Bookbinders	\$10 to \$18 per week without board.
Bricklayers	\$3 50 to \$4 per day without board.
Brewers	\$15 to \$25 per month with board.
Brass-finishers	\$10 to \$20 per week without board.
Butchers	\$10 to \$20 per month with board.
Cabinet-makers	\$2 to \$3 per day without board.
Cooks	\$25 to \$100 per month with board.
Cap-makers	\$8 to \$12 per week without board.
Chemists	\$10 to \$12 per week without board.
Compositors	\$15 to \$25 per week without board.
Confectioners	\$30 to \$40 per month with board.
Carpenters	\$3 50 to \$4 per day without board.
Coopers	\$18 to \$20 per week without board.
Cutlers	\$12 to \$18 per week without board.
Deck-hands	\$25 to \$30 per month with board.
Druggists	\$18 to \$25 per month with board.
Dyers	\$20 to \$25 per month with board.
Engravers	\$15 to \$35 per week without board.
Engineers	\$15 to \$18 per week without board.
Florists	\$15 to \$25 per month with board.
Furriers	\$10 to \$15 per week without board.
Fresco-painters	\$15 to \$35 per week without board.
Gilders	\$15 to \$18 per week without board.
Gardeners	\$15 to \$25 per month with board.
Grocery clerks	\$3 to \$15 per month with board.
Gas-fitters	\$15 to \$18 per week without board.
Goldsmiths	\$20 to \$30 per week without board.
Hatters	\$15 to \$20 per week without board.
Heaters	\$25 to \$30 per month with board.
Iron-molders	\$18 to \$20 per week without board.
Locksmiths	\$5 to \$15 per week without board.
Lithographers	\$12 to \$25 per week without board.

Table showing the wages paid in New York, &c.—Continued.

Occupation.	Wages offered.
Machinists.....	\$15 to \$18 per week without board.
Masons.....	\$3 to 4 per day without board.
Miners.....	90 cents per ton.
Millers.....	\$12 to \$18 per month with board.
Polishers.....	\$10 to \$15 per week without board.
Paper-hangers.....	\$10 to \$15 per week without board.
Puddlers.....	\$2 per day without board.
Plasterers.....	\$3 to \$5 per day without board.
Plumbers.....	\$2 50 to \$3 per day without board.
Printers.....	\$12 to \$18 per week without board.
Porters.....	\$8 to \$15 per week without board.
Painters.....	\$10 to \$15 per week without board.
Rope-makers.....	\$12 to \$15 per week without board.
Slate-roofers.....	\$2 to \$3 per day without board.
Saddlers and harness-makers.....	\$12 to \$15 per week without board.
Shoemakers.....	\$9 to \$15 per week without board.
Soap-makers.....	\$10 to \$12 per week without board.
Spinners.....	\$9 to \$12 per week without board.
Stone-cutters.....	\$3 to \$4 per day without board.
Segar-makers.....	\$8 to \$15 per week without board.
Tailors.....	\$10 to \$20 per week without board.
Tanners.....	\$15 to \$16 per month with board.
Tinsmiths.....	\$10 to \$15 per week without board.
Turners.....	\$10 to \$18 per week without board.
Upholsterers.....	\$12 to \$18 per week without board.
Varnishers.....	\$9 to \$12 per week without board.
Waiters.....	\$15 to \$30 per month with board.
Watch-makers.....	\$15 to \$20 per week without board.
Weavers.....	\$9 to \$12 per week without board.
Wheelwrights.....	\$15 to \$16 per week without board.
Wood-carvers.....	\$15 to \$20 per week without board.
Wine-coopers.....	\$30 per month with board.
Wagonsmiths.....	\$10 to 18 per week without board.

IMMIGRATION.

[The following having been received too late to appear in its proper place on page XIX, is inserted here.]

Table showing number of passengers brought into the port of New York by sailing and steam vessels during the year 1870.

[From the report of the New York Commissioners of Emigration.]

Port of sailing.	STEAMSHIPS.					SAILING VESSELS.					TOTAL.				
	No. of vessels.	Cabin passengers.	Steerage passengers.	Births.	Deaths.	No. of vessels.	Cabin passengers.	Steerage passengers.	Births.	Deaths.	No. of vessels.	Cabin passengers.	Steerage passengers.	Births.	Deaths.
Bremen.....	56	4,385	23,839	20	18	40	75	8,182	20	68	96	4,460	32,021	40	81
Glasgow.....	74	1,637	23,404	13	19	1	1	.....	.....	.....	75	1,638	23,404	13	19
Havre.....	26	3,446	61	.....	1	.....	.....	.....	.....	.....	26	3,446	61	.....	1
Hamburg.....	39	3,194	19,179	12	21	11	7	3,290	16	30	50	3,201	22,469	28	51
London, via Havre.....	17	422	4,557	3	4	.....	.....	.....	.....	.....	17	422	4,557	3	4
London.....	2	28	69	.....	.....	27	58	1,506	1	29	29	86	1,575	1	1
Liverpool.....	249	15,030	117,884	53	85	33	28	5,438	9	11	282	15,058	123,322	62	96
Copenhagen.....	3	19	3,633	3	4	.....	.....	.....	.....	.....	3	19	3,633	3	4
Other ports.....	18	101	1,462	1	3	44	99	408	1	.....	62	200	1,870	2	3
Total.....	484	28,262	194,088	105	156	156	268	18,824	47	110	640	28,530	212,912	152	265

* The number of alien passengers intending to remain in the country who arrived in the port of New York in the year 1870 was 212,170. The following corrections should be made to the table on page XIX. From Ireland, 65,168; Germany, 72,350; Switzerland, 1,925; Sweden, 11,551; Belgium, 93; total, 212,170.

INFORMATION FOR IMMIGRANTS.

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NEW YORK TRADES UNIONS.

Table showing the weekly wages of the members of eighty-eight trade societies in the city of New York and vicinity, in the year 1869.

[From the New York Daily Times.]

Trades.	Amount.	Trades.	Amount.
Bricklayers	\$27 00 to \$30 00	Marble-polishers	\$15 00 to \$18 00
Brickmakers	21 00 to 24 00	Masons	27 00 to 30 00
Boot and shoe makers	12 00	Millers	18 00
Boot and shoe finishers	18 00 to 21 00	Machinists	15 00 to 18 00
Bakers	8 00 to 15 90	Painters	21 00 to 24 00
Blacksmiths	20 00	Plasterers	24 00 to 36 00
Boiler-makers	18 00	Plumbers	18 00 to 24 00
Brass founders and finishers	21 00	Paper-hangers	15 00 to 18 00
Bookbinders	20 00	Paper-stainers	19 00
Blue-stone cutters and flaggers	18 00 to 24 00	Pressmen	20 00
Brown-stone cutters	27 00 to 30 00	Pressmen, (Adams)	18 00 to 24 00
Bellymen	18 00 to 24 00	Press-feeders	12 00 to 18 00
Book-folders, (females)	8 00 to 15 00	Proof readers	18 00 to 30 00
Carpenters	21 00 to 27 00	Pencil-case makers	18 00 to 21 00
Carpenters, (amalgamated)	21 00 to 24 00	Piano-case makers	20 00 to 25 00
Cabinet-makers	18 00 to 20 00	Piano-finishers	20 00 to 30 00
Carvers and gilders	25 00 to 30 00	Piano-key makers	15 00 to 20 00
Cutters	18 00 to 25 00	Piano regulators	20 00 to 30 00
Curriers	15 00 to 20 00	Piano sawyers and planers	18 00 to 25 00
Clothing cutters	20 00 to 24 00	Piano machinists	20 00 to 24 00
Clerks, dry goods	15 00 to 18 00	Picture-frame makers	18 00 to 22 00
Compositors, (males)	20 00 to 24 00	Plate-printers	25 00 to 30 00
Compositors, (females)	12 00 to 20 00	Pastry-cooks	18 00 to 21 00
Card-makers	5 00 to 12 00	Quarrymen	15 00 to 18 00
Cartmen	15 00 to 18 00	Roofers, tin	15 00 to 20 00
Cigar-makers	15 00 to 20 00	Roofers, slate	24 00 to 30 00
Confectioners	7 00 to 15 00	Restaurant and hotel carvers	20 00
Coopers	20 00 to 24 00	Stone-rubbers	15 00 to 18 00
Coach-drivers	15 00 to 20 00	Stair-builders	21 00 to 27 00
Cap-makers (males and females)	12 00 to 20 00	Sawyers	15 00 to 21 00
Derrick-men	18 00	Silversmiths	15 00 to 21 00
Engineers	18 00 to 30 00	Stereotypers	18 00 to 20 00
Gold-beaters	14 00 to 18 00	Sail-makers	21 00
Gas and steam fitters	21 00 to 24 00	Shoe clerks	10 00 to 20 00
Horseshoers	21 00 to 27 00	Seamen	*30 00 to 60 00
Horseshmiths	18 00 to 27 00	Trunk-makers	14 00 to 18 00
Hatters	15 00 to 30 00	Tailors	18 00 to 20 00
Hod-carriers	12 00 to 18 50	Type-casters	20 00 to 25 00
Iron-molders	15 00 to 21 00	Upholsterers	18 00 to 25 00
Jewelers	25 00 to 60 00	Varnishers and polishers	18 00 to 25 00
Longshoremen	15 00 to 21 00	Waiters	*35 00 to 60 00
Laborers	10 00 to 15 00	Watch-makers	30 00
Lathers	27 00	Watch-case makers	15 00 to 25 00
Marble-cutters	24 00 to 30 00	Number of societies	88
Marble-rubbers	21 00 to 24 00	Number of members	72, 544

* Monthly wages.

Table showing the wages paid in San Francisco and vicinity in 1869 for the following kinds of labor.

[From Annual Report of California Labor Exchange, May, 1869.]

Occupation.	Wages offered, (gold.)
Apprentices	\$15 to \$35 per month and found.
Apothecaries	\$40 to \$50 per month and found.
Bakers	\$30 to \$50 per month and found.
Bar tenders	\$40 to \$45 per month and found.
Barbers	\$80 per month.
Bed makers	\$25 to \$35 per month and found.
Bell hangers	\$2 50 to \$3 per day.
Blacksmiths	\$2 50 to \$4 per day; \$60 to \$100 per month and found.
Blacksmiths' helpers	\$2 to \$2 50 per day.
Boiler makers	\$35 to \$60 per month and found.
Bootblacks	\$45 per month.
Book-keepers	\$35 to \$100 per month.

Table showing the wages paid in San Francisco, *&c.*—Continued.

Occupation.	Wages offered, (gold.)
Boot and shoe makers	\$35 to \$60 per month; half-share; piece.
Bottlers	\$35 to \$40 per month and found.
Boys	\$10 to \$40 per month.
Bricklayers	\$4 50 to \$6 per day.
Brewers	\$50 per month.
Bridge-builders	\$75 per month and found.
Brush and broom makers	\$75 per month and found.
Burnishers	\$2 to \$3 per day.
Butchers	\$35 to \$60 per month and found.
Butter-makers	\$30 to \$45 per month and board.
Brick-makers	\$35 to \$60 per month and board.
Brickyard hands	\$30 to \$40 per month and board.
Box-makers	\$49 per month and found.
Coachmen	\$35 to \$50 per month and board.
Coal-miners	\$1 to \$1 25 per yard.
Coal-passers	\$35 per month and found.
Coal-yard men	\$30 to \$35 per month and found.
Coffin makers	\$2 50 to \$4 50 per day.
Confectioners	\$40 to \$60 per month and found.
Cooks	\$35 to \$100 per month and found.
Coopers	\$2 to \$3 25 per day, and piece-work.
Coppersmiths	\$3 to \$4 50 per day.
Carriers and tanners	\$3 to \$3 25 per day, and \$50 to \$60 per month.
Card-strippers	\$3 to \$4 per day.
Cabinet-makers	\$3 to \$4 per day, and piece-work.
Carpet-weavers	According to ability.
Carpenters, (house)	\$3 to \$4 per day.
Carpenters, (ship)	\$3 to \$5 per day.
Carriage-painters	\$3 to \$4 per day.
Carriage-builders	\$3 50 to \$4 per day.
Carriage-trimmers	\$3 to \$4 50 per day.
Calkers	\$3 to \$4 per day.
Carvers	Piece-work.
Charcoal-burners	\$35 per month and found.
Cheese-makers	\$30 to \$45 per month and found.
Clerks	\$40 to \$75 per month and found.
Deck-hands	\$40 per month and found.
Dish-washers	\$20 to \$35 per month and found.
Door and sash makers	\$2 50 to \$4 per day.
Druggists	\$60 per month and found.
Dyers	\$40 to \$50 per month and found.
Dairymen	\$30 to \$45 per month and found.
Engineers	\$4 to \$5 per day.
Engravers	Piece-work.
Edgers	\$40 to \$50 per month and found.
Farm-laborers	\$1 per day, \$30 per month and found, winter; \$2 per day, \$40 to \$50 per month and found, summer.
Filers, saw-mills	\$40 per month and found.
Firemen	\$40 to \$60 per month and found.
Fishermen	Two-fifths share of take.
Flour-packers	\$60 to \$80 per month.
Foundrymen	\$2 to \$2 50 per day.
Fringe-makers	\$60 per month.
Fruit-peddlers	\$30 to \$35 per month and found, shares.
Fruit-packers	\$25 to \$35 per month.
Furniture-polishers	\$2 per day.
Foremen	\$45 to \$60 per month and found.
Fence-builders	\$25 to \$40 per month and found.
Gardeners	\$30 to \$40 per month and found.
Gas-fitters	\$3 50 to \$4 50 per day.
Generally useful	\$30 to \$40 per month and found.
Gilders	\$50 to \$60 per month and found.
Glue-makers	\$35 to \$50 per month and found.
Grave-diggers	\$50 per month and found.
Grocers' help	\$20 to \$40 per month and found.
Grooms, &c	\$30 to \$40 per month and found.
Gunsmiths	\$3 to \$5 per day.
Grainers	\$2 50 to \$3 per day.
Hair and rope makers	\$2 50 to \$3 per day.
Harness-makers	\$40 to \$65 per month and found.
Hod-carriers	\$2 50 per day.
Hose-makers	\$2 50 to \$3 per day.
Housekeepers	\$30 to \$40 per month and found.
Horse-shoers	\$2 50 to \$3 50 per day.
Harness cleaners	\$45 to \$60 per month.
Hair-spinners	\$2 to \$2 50 per day.
Interpreters	\$30 to \$40 per month and found.
Iron-molders	\$3 50 to \$4 per day.
Iron-rail makers	\$3 to \$3 50 per day.
Iron-rollers	\$2 50 to \$3 per day.
	\$2 per day, \$30 to \$35 per month and found.

Table showing the wages paid in San Francisco, &c.—Continued.

Occupation.	Wages offered, (gold.)
Last-makers	\$2 50 to \$3 per day.
Lathers	\$3 to \$4 per day.
Laundrymen	\$30 to \$45 per month and found.
Local reporters	\$50 per month.
Locksmiths	\$3 to \$4 per day.
Lumbermen	\$35 to \$70 per month and found.
Lithographers	Per piece.
Machinists	\$3 50 to \$4 50 per day.
Machine-planters	\$2 50 to \$3 per day.
Men and their wives	\$50 to \$65 per month and found.
Marble-cutters	\$4 per day.
Marble-polishers	\$2 to \$2 50 per day.
Masons	\$4 to \$5 per day.
Mattress-makers	\$2 to \$3 per day.
Milkers and dairymen	\$30 to \$45 per month and found.
Millers	\$3 to \$4 per day.
Millwrights	\$3 to \$5 per day.
Miners	\$2 to \$3 50 per day and found, and \$40 to \$65 per month and found.
Malt-makers	\$50 per month.
Nurses	\$25 to \$35 per month and found.
Ox-teamsters	\$35 to \$75 per month and found.
Ostlers and teamsters	\$40 to \$45 per month and found.
Painters, (house)	\$2 50 to \$4 per day.
Pantrymen	\$35 per month and found.
Paper-hangers	\$2 50 to \$3 50 per day.
Pattern-makers	\$4 to \$4 50 per day.
Picture-frame makers	\$2 50 to \$3 50 per day and piece.
Pile-drivers	\$2 50 to \$3 per day.
Plasterers	\$4 to \$6 per day.
Plumbers	\$3 50 per day.
Porters	\$30 to \$55 per month and found.
Potato-diggers	\$30 to \$35 per month and found.
Printers	\$45 to \$80 per month and found.
Planers	\$60 per month and found.
Quarrymen	\$2 50 per day.
Stair-builders	\$2 50 to \$4 25 per day.
Stewards	\$30 to \$50 per month and found.
Storemen	\$20 to \$35 per month and found.
Street-sweepers	\$30 to \$35 per month and found.
Sugar-packers	\$80 per month.
Stonemasons	\$4 to \$5 per day.
Scourers	\$30 to \$60 per month and found.
Salesmen	\$30 to \$60 per month and found; numerous applicants.
Sawyers	\$40 to \$100 per month and found.
Sheep-shearers	5 cents to 7 cents per head.
Shepherds	\$25 to \$35 per month and found.
Shipsmiths	\$4 per day.
Sluicers	\$1 75 to \$2 25 per day. See Miners.
Smelters	\$60 to \$120 per month and found.
Soap-makers	\$35 to \$40 per month and found.
Teamsters	\$30 to \$50 per month and found.
Teachers	\$40 per month and found.
Tin-roofers	\$4 per day.
Tinsmiths	\$3 to \$4 per day.
Track-layers	\$1 25 to \$2 per day and found.
Trunk-makers	\$2 50 to \$3 per day.
Turners	\$3 50 to \$4 per day.
Timbermen	\$2 to \$3 per day.
Upholsterers	\$3 to \$4 per day.
Undertakers	\$80 per month.
Vineyard men	\$30 to \$40 per month and found.
Varnishers	\$2 50 to \$3 50 per day.
Visemen	\$2 50 to \$3 per day.
Wagon-makers	\$3 to \$4 per day.
Waiters	\$30 to \$40 per month and found.
Warehousemen	\$2 to \$3 per day.
Watchmen	\$50 to \$75 per month.
Well-diggers	\$2 50 per day, contract.
Wheelwrights	\$3 to \$4 per day.
Woodchoppers	\$40 to \$70 per month and found.
Whip-makers	\$3 per day.
Whitewashers	\$3 per day.

IV. EXPENSES OF LIVING.

COST OF PROVISIONS, GROCERIES, DRY GOODS, HOUSE RENT, &c.

Table showing the average retail prices of provisions, groceries, and other leading articles of consumption; also prices of board and house rent in the towns of the several New England and Middle States, in the year 1869.

Articles.	Maine.	New Hampshire.	Vermont.	Massachusetts.	Rhode Island.	Connecticut.	New York.	New Jersey.	Pennsylvania.	Delaware.	Maryland.	Virginia.	West Virginia.
PROVISIONS.													
Flour, wheat, superfine.....barrel..	\$9 15	\$9 32	\$10 12	\$9 23	\$9 70	\$9 61	\$7 85	\$9 66	\$7 53	\$7 00	\$7 00	\$6 61	\$6 58
do., extra family.....do.....	9 40	9 81	9 75	10 51	10 40	10 92	7 90	9 00	7 75	8 00	8 00	8 08	8 14
Rye.....do.....	6 33	7 30	7 00	6 47	5 50	7 75	6 53	7 25	6 75	8 00	8 00	6 27	5 32
Corn meal.....do.....	2 38	2 91	5 20	4 23	3 06	3 75	3 65	5 50	4 32	4 00	5 00	4 14	3 27
Beef, fresh, roasting pieces.....pound..	14	20	18	24	21	21	9	14	17	15	15	12	11
do., soup pieces.....do.....	6	8	13	8	9	11	9	14	12	15	18	8	8
do., rump steaks.....do.....	23	24	20	26	23	23	20	22	18	18	16	12	12
do., corned.....do.....	13	15	11	15	15	16	14	16	14	12	18	12	13
Veal, fore quarters.....do.....	10	13	10	14	16	16	13	17	11	14	18	11	9
do., hind quarters.....do.....	11	17	12	19	21	19	16	22	13	16	18	13	11
Cutlets.....do.....	15	22	20	27	23	23	20	27	18	16	16	14	14
Mutton, fore quarters.....do.....	9	13	12	14	15	15	12	18	11	15	18	10	7
do., legs.....do.....	11	18	15	20	22	21	16	13	11	17	18	12	9
do., chops.....do.....	12	19	16	20	24	23	17	20	16	18	18	12	12
Pork, fresh.....do.....	16	18	16	20	20	20	18	20	17	20	25	12	11
do., corned and salted.....do.....	22	21	23	20	20	22	19	19	18	25	25	16	15
Bacon.....do.....	23	22	23	20	20	21	22	23	19	25	25	21	18
Hams, smoked.....do.....	21	23	23	23	21	25	24	23	24	21	20	24	22
Shoulders.....do.....	18	23	23	23	17	30	24	23	18	21	20	16	16
Sausages.....do.....	19	21	25	23	23	23	23	23	20	23	25	20	19
Lard.....do.....	24	25	25	23	22	24	24	24	22	23	25	22	19
do., 8.....do.....	8	9	9	9	8	10	9	11	10	8	20	11	9
Godfish, dry.....do.....	13	14	16	14	13	16	15	15	11	11	20	13	12
Mackerel, pickled.....do.....	43	41	42	46	47	48	42	52	40	50	40	33	27
Butter.....do.....	21	20	18	20	21	24	20	23	25	25	25	26	23
Cheese.....do.....	54	67	55	79	73	66	60	96	60	60	1	91	61
Potatoes.....bushel	13	13	13	13	12	14	13	13	13	13	8	13	10
Rice.....pound	12	14	13	14	13	13	12	12	12	8	10	10	9
Beans.....quart	7	7	7	7	7	7	8	8	5	5	10	10	9
Milk.....do.....	28	31	27	37	39	36	31	39	25	40	40	23	16
Eggs.....dozen.	28	31	27	37	39	36	31	39	25	40	40	23	16

Table showing the average retail prices of provisions, groceries, and other leading articles of consumption; also prices of board and house rent in the towns of the following Western States and Territories in the year 1899.

Articles.	Ohio.	Indiana.	Michigan.	Illinois.	Missouri.	Kentucky.	Tennessee.	Wisconsin.	Minnesota.	Iowa.	Kansas.	Nebraska.	Colorado.	Dakota.
PROVISIONS.														
Flour, wheat, superfine..... barrels.....	\$6 41	\$5 66	\$6 17	\$6 19	\$6 25	\$6 50	\$6 72	\$5 35	\$4 30	\$5 28	\$6 39	\$6 75	\$12 43	\$6 75
extra family..... do.....	6 82	6 38	7 14	7 50	7 80	7 70	8 00	5 91	4 71	6 15	7 68	5 25	12 80	7 00
Corn meal..... do.....	4 90	5 37	6 09	6 09	6 31	5 55	4 58	4 76	4 64	4 82	5 00	4 75	12 00	7 00
Beef, fresh, roasting pieces..... pound.....	3 52	3 75	4 18	3 75	3 63	3 03	.....	3 75	4 85	3 59	3 15	4 50	9 44	6 00
soup pieces..... do.....	14	12	14	11	11	11	8	13	12	11	11	13	13	13
rump steaks..... do.....	9	8	8	8	8	7	5	9	8	8	8	5	8	8
corned..... do.....	15	13	15	12	12	12	8	13	12	13	12	15	14	17
Veal, fore quarters..... do.....	10	12	10	10	10	10	7	9	10	10	9	9	11	13
hind quarters..... do.....	8	9	8	9	10	9	7	10	8	9	12	11	13	15
cutlets..... do.....	10	12	11	11	13	11	9	11	11	12	13	13	16	16
Mutton, fore quarters..... do.....	14	13	16	12	14	14	10	13	13	13	14	17	19	18
legs..... do.....	8	9	7	10	8	8	9	9	8	8	9	11	11	15
chops..... do.....	10	9	14	12	11	9	11	12	11	10	11	13	15	16
Pork, fresh..... do.....	11	10	12	12	11	10	8	11	13	11	10	15	16	16
corned and salted..... do.....	14	14	15	14	12	12	10	14	13	13	14	12	20	16
bacon..... do.....	17	16	19	17	14	14	12	17	17	16	16	17	26	25
hams, smoked..... do.....	17	19	18	19	19	19	17	19	19	19	20	23	27	27
shoulders..... do.....	20	22	21	22	21	21	20	20	22	21	23	25	29	33
sausage..... do.....	16	17	16	16	15	15	15	16	16	17	17	16	17	27
Lard..... do.....	18	17	18	17	14	16	17	18	19	16	17	17	28	30
Codfish, dry..... do.....	21	21	23	21	20	20	20	22	21	19	21	20	30	27
Mackerel, pickled..... do.....	11	11	10	11	11	12	13	11	12	12	11	11	24	22
Butter..... do.....	14	13	15	14	14	12	10	14	14	15	15	16	27	27
Cheese..... do.....	31	30	32	29	32	29	27	30	27	26	36	42	46	37
Potatoes..... bushel.....	20	23	23	23	25	26	25	22	22	22	22	22	27	32
Rice..... pound.....	44	42	41	41	60	58	90	52	63	44	38	32	2 04	1 00
Beans..... quart.....	12	13	13	13	13	14	16	13	14	14	14	14	14	18
Milk..... do.....	9	11	9	11	9	11	9	9	9	10	11	7	15	20
Eggs..... dozen.....	5	7	7	7	8	8	10	7	6	7	9	7	12	17
do..... do.....	24	22	23	23	21	15	19	20	21	19	28	35	56	42
GROCERIES, ETC.														
Tea, Oolong or black..... pound.....	1 44	1 64	1 46	1 55	1 65	1 91	1 93	1 50	1 45	1 56	1 56	1 50	2 10	2 15
Coffee, Rio, green..... do.....	32	36	31	33	33	34	30	35	33	34	33	34	41	40

Sugar, good brown	do.	15	16	15	16	17	17	17	15	16	16	15	24	21
do.	do.	16	17	16	17	18	18	18	16	17	17	16	25	22
Yellow C	do.	17	18	18	18	20	18	18	17	17	19	18	26	18
Coffee B	do.	17	18	18	18	20	18	18	17	17	19	18	26	18
Molasses, New Orleans	gallon.	1 12	1 08	1 01	09	1 04	1 07	1 02	09	1 04	88	36	1 01	1 05
do.	do.	1 06	09	06	08	08	09	01	89	1 04	80	44	1 78	1 85
Molasses, Porto Rico	do.	1 20	1 33	1 33	1 36	1 34	1 36	1 41	1 26	1 14	1 20	1 37	2 46	3 00
Sirup	do.	1 11	1 10	1 11	1 13	1 08	1 10	1 10	1 11	1 10	1 10	1 19	2 32	3 19
Sugar, common	do.	13	12	15	13	13	12	12	14	15	12	17	31	20
Starb.	do.	6 27	5 05	11 04	4 33	6 42	7 18	7 00	11 54	5 48	8 66	14 00	7 20	5 50
Fuel-coal	ton	3 43	3 42	3 26	4 44	3 77	3 76	2 80	5 15	4 33	5 54	8 50	9 33	3 00
wood, hard	cord	1 85	1 85	1 85	3 63	2 00	3 37	2 75	3 15	3 00	5 00	5 00	4 31	3 00
pine	do.	45	50	47	52	56	61	70	55	57	59	60	1 35	1 42
Oil	gallon.													
DOMESTIC DRY GOODS, ETC.														
Shirting, brown, 4x4, standard quality	yard.	18	18	17	18	18	18	19	18	18	20	18	25	23
bleach, 4x4, standard quality	do.	22	20	22	22	25	20	22	23	23	25	22	27	32
Shooting, brown, 9x8, standard quality	do.	21	21	25	27	28	31	30	27	20	37	22	32	30
bleach, 9x8, standard quality	do.	20	25	31	33	33	33	32	34	26	49	27	37	37
Cotton flannel, (Hampden)	do.	27	28	29	27	29	28	27	30	20	37	35	38	45
Ticking, good, quality	do.	37	39	36	39	42	38	46	38	40	37	33	43	75
Prints, Merino	do.	24	14	13	14	14	14	16	14	14	13	15	56	17
Mousseline de laine	do.	24	24	23	24	26	28	28	24	24	25	23	31	27
Satinets, medium quality	do.	76	85	85	83	86	87	80	87	81	76	1 01	77	1 00
Boots, men's heavy	pair.	5 10	5 05	5 16	5 07	5 10	4 97	4 73	5 28	4 80	4 83	5 50	7 12	6 75
HOUSE RENT.														
Four-roomed tenements	month.	7 53	9 20	7 95	10 84	12 00	12 79	12 18	8 24	10 57	18 43	27 50	14 94	25 00
Six-roomed tenements	do.	10 73	12 23	11 15	14 97	16 14	17 45	17 12	11 30	14 07	26 14	40 00	20 12	50 00
BOARD.														
for men	week.	4 03	4 09	4 54	4 26	4 22	4 28	3 80	4 44	4 22	4 17	5 75	7 44	6 50
for women	do.	3 46	3 70	4 00	3 91	3 84	4 04	3 35	3 60	3 75	3 66	5 00	7 44	5 25

Table showing the average retail prices of provisions, groceries, and other leading articles of consumption; also prices of board and house rent in the towns of the several Pacific and Southern States and the Territories in the year 1889.

Articles.	North Carolina.	South Carolina.	Georgia.	Alabama.	Mississippi.	Louisiana.	Texas.	Arkansas.	California.	Oregon.	Nevada.	New Mexico.	Montana.	Idaho.	Arizona.
PROVISIONS.															
Flour, wheat, superfine.....barrel.	\$0 50	\$0 62	\$0 54	\$0 38	\$0 27	\$7 64	\$8 95	\$0 00	\$5 71	\$4 78	\$11 83	\$14 00	\$20 00	\$18 22	\$25 00
do. extra family.....do.	10 64	10 75	10 27	10 94	10 72	10 05	9 63	10 65	7 73	4 90	11 46	15 00	.....	15 77	25 00
Corn meal.....do.	5 66	5 63	5 60	10 00	.....	.....	.....	10 00	11 00	.....	15 17	.....	.....	10 00	.....
Beef, fresh, roasting pieces.....pound.	5 17	5 18	5 20	4 54	5 07	5 32	3 46	2 92	8 02	8 66	11 09	9 00	26 00	18 33	19 22
do. soup pieces.....do.	6 00	6 00	6 00	11 18	12 12	12 12	4 00	4 00	12 12	12 12	11 11	11 11	7 12	12 12	11 11
do. rump steaks.....do.	7 11	7 11	7 11	12 12	12 12	12 12	4 00	4 00	12 12	12 12	11 11	11 11	7 12	12 12	11 11
do. corned.....do.	6 12	6 12	6 12	12 12	12 12	12 12	4 00	4 00	12 12	12 12	11 11	11 11	7 12	12 12	11 11
do. Veal fore quarters.....do.	6 12	6 12	6 12	12 12	12 12	12 12	4 00	4 00	12 12	12 12	11 11	11 11	7 12	12 12	11 11
do. hind quarters.....do.	6 12	6 12	6 12	12 12	12 12	12 12	4 00	4 00	12 12	12 12	11 11	11 11	7 12	12 12	11 11
do. calves.....do.	7 12	7 12	7 12	12 12	12 12	12 12	4 00	4 00	12 12	12 12	11 11	11 11	7 12	12 12	11 11
do. Mutton, fore quarters.....do.	7 12	7 12	7 12	12 12	12 12	12 12	4 00	4 00	12 12	12 12	11 11	11 11	7 12	12 12	11 11
do. leg.....do.	7 12	7 12	7 12	12 12	12 12	12 12	4 00	4 00	12 12	12 12	11 11	11 11	7 12	12 12	11 11
do. chops.....do.	7 12	7 12	7 12	12 12	12 12	12 12	4 00	4 00	12 12	12 12	11 11	11 11	7 12	12 12	11 11
do. Pork, fresh.....do.	11 11	11 11	11 11	12 12	12 12	12 12	4 00	4 00	12 12	12 12	11 11	11 11	7 12	12 12	11 11
do. corned or salted.....do.	14 14	14 14	14 14	12 12	12 12	12 12	4 00	4 00	12 12	12 12	11 11	11 11	7 12	12 12	11 11
do. Bacon.....do.	30 30	30 30	30 30	30 30	30 30	30 30	30 30	30 30	30 30	30 30	30 30	30 30	30 30	30 30	30 30
do. Ham, smoked.....do.	32 32	32 32	32 32	32 32	32 32	32 32	32 32	32 32	32 32	32 32	32 32	32 32	32 32	32 32	32 32
do. Sausages.....do.	19 19	19 19	19 19	19 19	19 19	19 19	19 19	19 19	19 19	19 19	19 19	19 19	19 19	19 19	19 19
do. Lard.....do.	22 22	22 22	22 22	22 22	22 22	22 22	22 22	22 22	22 22	22 22	22 22	22 22	22 22	22 22	22 22
do. Codfish, dry.....do.	10 10	10 10	10 10	10 10	10 10	10 10	10 10	10 10	10 10	10 10	10 10	10 10	10 10	10 10	10 10
do. Pickled.....do.	11 11	11 11	11 11	11 11	11 11	11 11	11 11	11 11	11 11	11 11	11 11	11 11	11 11	11 11	11 11
do. Butter.....do.	25 25	25 25	25 25	25 25	25 25	25 25	25 25	25 25	25 25	25 25	25 25	25 25	25 25	25 25	25 25
do. Cheese.....do.	23 23	23 23	23 23	23 23	23 23	23 23	23 23	23 23	23 23	23 23	23 23	23 23	23 23	23 23	23 23
do. Potatoes.....do.	13 13	13 13	13 13	13 13	13 13	13 13	13 13	13 13	13 13	13 13	13 13	13 13	13 13	13 13	13 13
do. Beans.....do.	6 6	6 6	6 6	6 6	6 6	6 6	6 6	6 6	6 6	6 6	6 6	6 6	6 6	6 6	6 6
do. Milk.....do.	7 7	7 7	7 7	7 7	7 7	7 7	7 7	7 7	7 7	7 7	7 7	7 7	7 7	7 7	7 7
do. Eggs.....dozen.	13 13	13 13	13 13	13 13	13 13	13 13	13 13	13 13	13 13	13 13	13 13	13 13	13 13	13 13	13 13
GROCERIES, ETC.															
Tea, Oolong, or other good black.....pound.	1 94	1 77	1 71	2 03	1 87	1 92	1 60	2 17	1 04	1 06	1 09	1 75	1 50	1 65	1 25
Coffee, Rio, green.....do.	1 30	1 29	1 27	2 29	1 27	1 28	2 24	2 29	1 24	1 24	1 33	1 50	1 43	1 46	1 53

Sugar, good brown.....do.....	33	17	17	33	31	34	40	.....	48	75	55	37
do.....do.....	17	17	17	16	16	15	16	19	21	25	27	40
Yellow C.....do.....	19	18	18	18	18	17	18	18	22	27	33	20
Coffee B.....do.....	20	19	19	19	19	16	19	20	20	30	37	44
Molasses, New Orleans.....gallon.....	98	1	98	1	98	1	98	1	1	98	3	4
do.....do.....	79	84	79	84	81	82	81	1	1	82	3	4
Sirup.....do.....	1	14	1	14	1	1	1	1	1	1	1	1
do.....do.....	1	14	1	14	1	1	1	1	1	1	1	1
Soap, common.....pound.....	9	14	9	14	9	14	9	14	9	14	9	14
do.....do.....	19	17	19	17	19	17	19	17	19	17	19	17
Fuel, coal.....ton.....	2	05	2	05	2	05	2	05	2	05	2	05
do.....do.....	1	89	1	89	1	89	1	89	1	89	1	89
Oil, wood, hard.....cord.....	72	3	25	3	25	3	25	3	25	3	25	3
do.....do.....	1	89	1	89	1	89	1	89	1	89	1	89
Oil, coal.....gallon.....	72	3	25	3	25	3	25	3	25	3	25	3
DOMESTIC DRY GOODS, ETC.												
Shirting, brown, 4x4, standard quality.....yard.....	19	19	19	19	19	23	18	22	20	26	25	20
do.....do.....	22	25	22	25	22	25	22	25	22	25	22	25
Sheetings, brown, 9x8, standard quality.....do.....	38	33	38	33	38	33	38	33	38	33	38	33
do.....do.....	39	31	39	31	39	31	39	31	39	31	39	31
Cotton flannel (Hamilton).....do.....	27	27	27	27	27	27	27	27	27	27	27	27
do.....do.....	35	38	35	38	35	38	35	38	35	38	35	38
Prints, Martineae.....do.....	16	16	16	16	16	16	16	16	16	16	16	16
do.....do.....	27	38	27	38	27	38	27	38	27	38	27	38
Mousseline de laines.....do.....	73	72	73	72	73	72	73	72	73	72	73	72
Satinet, medium quality.....do.....	4	47	4	47	4	47	4	47	4	47	4	47
Boots, men's heavy.....pair.....	4	47	4	47	4	47	4	47	4	47	4	47
HOUSE RENT.												
Four-roomed tenements.....month.....	6	06	10	56	18	62	16	40	19	19	17	86
do.....do.....	8	56	15	62	24	63	24	25	29	28	22	71
Six-roomed tenements.....do.....												
BOARD.												
For men.....week.....	3	40	4	87	4	84	3	82	5	06	9	62
do.....do.....	2	90	4	50	4	43	3	61	4	71	8	00

Table showing the average retail prices of provisions, groceries, and other leading articles of consumption; also prices of board and house rent in the towns of the following sections, and the general average in the United States in the year 1869.

Articles.	New England.	Middle States, (including Virginia and W. Virginia.)	Western States, (including Kentucky and Tennessee.)	Southern States.	Pacific States, California and Oregon, gold.)	General average of United States, (exclusive of Territories.)	Territories and Nevada, (gold.)
PROVISIONS.							
Flour, wheat, superfine..... barrel..	\$9 53	\$7 19	\$6 00	\$8 86	\$5 24	\$7 36	\$14 46
extra family..... do.....	10 12	8 11	6 75	10 47	6 31	8 35	15 46
rye..... do.....	6 72	6 75	5 28	8 06	11 00	7 56	13 20
Corn meal..... do.....	3 58	4 62	3 79	4 73	8 34	5 01	14 28
Beef, fresh, roasting pieces..... pound..	20	17	12	10	12	14	17
soup pieces..... do.....	9	11	7	7	11	9	13
rump steaks..... do.....	23	16	13	9	12	15	18
corned..... do.....	14	14	9	10	9	10	15
Veal, fore quarters..... do.....	13	14	9	9	11	11	17
hind quarters..... do.....	16	16	11	10	13	13	19
cutlets..... do.....	22	17	13	13	15	16	20
Mutton, fore quarters..... do.....	13	12	8	10	10	10	16
leg..... do.....	16	14	11	11	11	13	19
chops..... do.....	19	15	11	13	12	14	19
Pork, fresh..... do.....	18	14	13	12	11	13	22
corned or salted..... do.....	22	20	16	17	13	18	34
bacon..... do.....	21	21	19	20	16	19	32
hams, smoked..... do.....	23	23	21	23	20	22	38
shoulders..... do.....	18	19	16	18	13	17	32
sausages..... do.....	22	21	17	21	16	19	38
Lard..... do.....	24	20	21	23	17	21	35
Codfish, dry..... do.....	9	11	11	15	18	13	30
Mackerel, pickled..... do.....	14	13	13	15	19	15	31
Butter..... do.....	45	40	31	34	39	38	69
Cheese..... do.....	21	25	23	26	23	24	42
Potatoes..... bushel..	66	80	50	1 11	68	75	2 30
Rice..... pound..	13	13	13	13	13	13	31
Beans..... quart..	13	9	9	14	11	11	19
Milk..... do.....	7	9	7	12	12	9	22
Eggs..... dozen..	33	28	22	24	40	29	77
Tea, Oolong, or other good black..... pound..	1 17	1 30	1 59	1 88	1 05	1 40	1 64
Coffee, Rio, green..... do.....	31	29	28	28	24	28	41
Rio, roasted..... do.....	38	33	33	33	36	35	53
Sugar, good brown..... do.....	14	15	16	17	14	15	27
yellow C..... do.....	15	16	16	18	16	16	27
coffee B..... do.....	17	17	18	19	16	17	30
Molasses, New Orleans..... gallon..	1 03	96	1 05	1 00	1 11	1 03	2 33
Porto Rico..... do.....	87	73	86	83	1 06	87	2 35
Sirup..... do.....	1 15	1 12	1 29	1 21	1 19	1 19	2 92
Soap, common..... pound..	12	10	10	11	11	11	26
Starch..... do.....	16	12	14	16	22	16	36
Fuel—coal..... ton..	11 06	7 58	7 91	9 75	17 80	10 80	7 20
wood, hard..... cord..	6 96	4 44	4 42	3 81	5 31	4 98	6 60
pine..... do.....	5 38	3 95	3 06	3 29	4 21	3 98	5 85
Oil, coal..... gallon..	48	53	56	73	94	65	1 98
DOMESTIC DRY GOODS, ETC.							
Shirtings, brown, 4×4 standard quality..... yard..	18	21	18	20	18	19	23
bleached, 4×4 standard quality do.....	19	24	22	23	21	22	28
Sheetings, brown, 9×8 standard quality..... do.....	19	24	26	30	30	26	37
bleached, 9×8 standard quality do.....	23	31	31	35	36	31	41
Cotton flannel, "Hamilton," (or similar quality)..... yard..	27	26	29	27	26	27	41
Tickings, good quality..... do.....	35	37	39	40	36	35	49
Prints, Merrimac..... do.....	15	15	14	16	13	15	26
Mousseline de laines..... do.....	23	24	25	31	25	26	31
Satinets, medium quality..... do.....	69	71	85	73	87	77	77
Boots, men's heavy..... pair..	4 66	5 18	5 04	4 89	5 51	5 06	7 27
HOUSE RENT.							
Four-roomed tenements..... month..	5 47	7 04	12 40	15 58	11 06	10 31	25 88
Six-roomed tenements..... do.....	7 62	10 50	17 03	22 26	16 66	14 81	37 55
BOARD.							
For men..... week..	4 23	4 46	4 37	4 61	6 36	4 80	9 06
For women..... do.....	3 02	3 66	3 89	4 33	5 80	4 14	8 47

INFORMATION FOR IMMIGRANTS.

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Table showing the foreign-born and the native population of the several States and Territories on the 1st day of June, 1870.

[Corrected from census returns received up to May 25, 1871.]

States and Territories.	Foreign.	Native.	Total.
Maine.....	48,881	578,034	626,915
Massachusetts.....	353,319	1,104,032	1,457,351
Vermont.....	47,155	283,396	330,551
New Hampshire.....	29,611	288,689	318,300
Connecticut.....	113,639	423,815	537,454
Rhode Island.....	55,396	161,957	217,353
New York, (city of New York, first enumeration).....	1,130,617	3,227,030	*4,357,647
New Jersey.....	188,943	717,153	906,096
Pennsylvania, (city of Philadelphia, first enumeration).....	541,062	2,964,200	†3,505,262
Delaware.....	9,136	115,879	125,015
Maryland.....	83,412	697,482	780,894
District of Columbia.....	16,254	115,446	131,700
West Virginia.....	17,091	424,923	442,014
Ohio.....	373,250	2,291,752	2,665,002
Kentucky.....	63,398	1,257,613	1,321,011
Indiana.....	141,474	1,539,163	1,680,637
Illinois.....	514,958	2,023,442	2,538,400
Michigan.....	268,010	916,049	1,184,059
Wisconsin.....	364,246	690,307	1,055,553
Minnesota.....	160,697	279,009	439,706
Iowa.....	204,057	987,735	1,191,792
Missouri.....	222,267	1,499,028	1,721,295
Kansas.....	48,389	315,988	364,377
Nebraska.....	30,748	92,245	122,993
Colorado.....	6,598	33,266	39,864
Dakota.....	4,815	9,366	14,181
Idaho.....	7,885	7,114	14,999
Wyoming.....	3,507	15,611	9,118
Utah.....	30,702	56,084	86,786
Montana.....	7,982	12,613	20,595
Virginia.....	13,754	1,211,409	1,225,163
North Carolina.....	3,029	1,068,375	1,071,404
South Carolina.....	8,071	697,092	705,163
Georgia.....	11,145	1,184,193	1,195,338
Florida.....	4,967	182,781	187,748
Alabama.....	9,962	987,030	996,992
†Mississippi.....	11,198	817,426	828,624
Louisiana.....	61,827	665,088	726,915
§Texas.....	101,276	708,942	810,218
Arkansas.....	5,026	479,141	484,167
Tennessee.....	19,314	1,239,059	1,258,373
New Mexico.....	5,620	86,254	91,874
Arizona.....	5,809	3,849	9,658
California.....	209,827	350,396	560,223
Oregon.....	11,600	79,323	90,923
Nevada.....	18,801	23,690	42,491
Washington.....	5,624	18,931	23,955
Total in United States.....	5,594,349	32,931,380	38,525,729

* Population of the State, using the second enumeration of the city of New York, is 4,374,499. The distribution of the excess, as native and foreign, not yet effected.

† Population of the State, using the second enumeration of the city of Philadelphia, is 3,519,601. The distribution of the excess as native and foreign, not yet effected.

‡ One county estimated.

§ In the total population, one county estimated; the number of native and foreign largely estimated.

CENSUS OFFICE, May 25, 1871.

FRANCIS A. WALKER,
Superintendent.

THE

Northern Pacific Railroad;

ITS

ROUTE, RESOURCES, PROGRESS AND BUSINESS.



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ISSUED BY

JAY COOKE & CO.

FINANCIAL AGENTS OF THE NORTHERN PACIFIC RAILROAD CO.

Organization.

Trustees for the First Mortgage Bondholders:

JAY COOKE,
J. EDGAR THOMSON.

Officers of the Northern Pacific Railroad Company:

J. GREGORY SMITH, <i>President</i> ,	}	120 BROADWAY, NEW YORK.
R. D. RICE, <i>Vice-President</i> ,		
SAMUEL WILKESON, <i>Secretary</i> ,		
A. H. BARNEY, <i>Treasurer</i> ,		
W. MILNOR ROBERTS, <i>Engineer-in-Chief</i> ,		
EDWIN F. JOHNSON, <i>Consulting Engineer</i> ,		

Board of Directors:

J. GREGORY SMITH,	ST. ALBANS, VT.
R. D. RICE,	AUGUSTA, MAINE.
THOMAS H. CANFIELD,	BURLINGTON, VT.
WM. B. OGDEN,	CHICAGO, ILL.
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JAMES STINSON,	CHICAGO, ILL.
SAMUEL M. FELTON,	PHILADELPHIA, PENN.
CHARLES B. WRIGHT,	PHILADELPHIA, PENN.

Secretary: SAMUEL WILKESON.

Executive Committee:

J. GREGORY SMITH,	WILLIAM G. FARGO,
R. D. RICE,	WILLIAM WINDOM,
WILLIAM B. OGDEN,	S. M. FELTON,
GEORGE W. CASS,	CHARLES B. WRIGHT,
WILLIAM G. MOORHEAD.	

Financial Agents for the Railroad Company:

JAY COOKE & CO.
PHILADELPHIA.

THE NEW NORTHWEST.

LAND GRANT

OF

THE NORTHERN PACIFIC RAILROAD COMPANY.

THE charter granted by the Congress of the United States of America to the Northern Pacific Railroad Company, with its amendments, confers the right to construct a line of Railroad and Telegraph across the continent, between some point on Lake Superior, in the State of Wisconsin or Minnesota, and some point on Puget Sound, *via* the valley of the Columbia river, by the most eligible route within the territory of the United States, on a line north of the 45th parallel of latitude, with a branch to Puget Sound across the Cascade mountains from some convenient point on the main trunk line.

The charter grants the Company for each mile of track 20 alternate sections of public land (640 acres to the section) on each side of the line of the Road in the Territories, and 10 alternate sections on each side of the line in the States, through which it runs. This is equivalent to 25,600 acres per mile through the Territories, and 12,800 acres per mile through the States, or an average of nearly 23,000 acres per mile along the entire length of the Road. The grant is the same for the chartered branch of the Road as for the trunk line. It grants to the Company the right of way for their Road and Telegraph line through the public domain, to the extent of 200 feet in width on each side of the track, and all necessary ground for station-buildings, workshops, depots, machine-shops, switches, side-tracks, turn-tables, and water-stations. It grants to the Company the right to take from the public domain adjacent to the line of the Road, earth, stone, and timber for construction. If, owing to pre-emption, settlement under the Homestead Law, or other cause, the Company cannot get, within the above limits, the quantity of land per mile to which it is entitled by its charter, it may make up the deficiency anywhere within twenty miles beyond either boundary of its land grant. This provision renders it absolutely certain that the Company will receive the full amount of land granted.

The amount of land granted to the Northern Pacific Railroad by its charter, original and as amended, exceeds Fifty Millions (50,000,000) of acres. This superb estate is larger by 10,000 square miles than the six New England States, or as large as Ohio and Indiana combined. There is room in it for ten States as large as Massachusetts, each of them with a soil, a climate, and resources of coal, timber, ores of metals, and perpetual water-power, altogether superior to those upon which Massachusetts has become populous, rich, refined, and politically powerful. The grant is nearly seven times as large as Belgium, or more than three and a half times as large as Holland.

CLIMATE—TEMPERATURE, MOISTURE, SOIL.

Three conditions are essential to successful agriculture and the sustenance of a dense population, viz. :—1. A climate warm enough to ripen crops, and secure the comfort of man and beast. 2. A soil of reasonable natural fertility. 3. Sufficient moisture to render that soil productive. Either of these elements being absent, the result is a more or less sterile country. Upon the fact that these three prime conditions are found combined in the region traversed by the Northern Pacific Railroad rests the need, the feasibility and the assured success of this great enterprise.

Temperature.—The belt of country tributary to the Northern Pacific Road is within the parallels of latitude which in Europe, Asia, and America, embrace the most enlightened, creative, conquering and progressive populations. It is within the climatic conditions illustrated on the maps by the curvature Northwards of the isothermal lines of mean temperature which mark on the Pacific coast in latitude 47 North, the mildness of the climate of the Chesapeake Bay on the Atlantic side in latitude 38, and which give to the region of this railroad between the Great Lakes and the Pacific a milder atmosphere than is to be found anywhere else at the same distance north of the equator, except upon the Western coast of Europe. The summer isothermal line of 70 degrees, which in Europe passes through Southern France, Lombardy, and the wheat-growing region of Southern Russia, strikes the Atlantic coast of the United States at the east end of Long Island, and passing through Central Pennsylvania, Northern Ohio and Indiana, diverges northwesterly, and runs up into the British Possessions to latitude 52, at least 360 miles north of the line of this Road.

The fact of this mildness of climate is abundantly established. Nowhere between the Lakes and the Pacific is the climate colder than in Minnesota; and this great State is not surpassed as a grain-growing region, or in healthfulness of atmosphere. The seasons of Dakota are very similar to those of Iowa, and from Dakota westward the climate steadily modifies, until, in Oregon and Washington Territory, there is almost no winter at all aside from a rainy season, as in California. In many portions of Dakota, Montana, and Northern Idaho, cattle and horses range out all winter, and keep in excellent condition on the nutritious grasses of the plains and valleys. Records kept by Government officers at the various military stations on the upper waters of the Missouri, show that the average annual temperature for a series of years has been warmer in Northern Montana than at Chicago or Albany.

This remarkable modification of climate, the existence of which no well-informed person now questions, is due to several natural causes, chief among which are probably these:—First, the mountain country lying between the 44th and 50th parallels is lower by some 3,000 feet than the belt lying immediately south. The highest point on the line of the Northern Pacific Road is 3,300 feet lower than the corresponding summit of the Union and Central line. Both the Rocky and the Cascade ranges, where they are crossed by the Northern Pacific route, are broken down to low elevations compared with their height four hundred miles southward. This difference in altitude would itself account for much of the difference in climate, as three degrees of temperature are allowed for each thousand feet of elevation. But, second, the warm winds from the South Pacific, which prevail in winter, and (aided by the warm ocean current corresponding to our Atlantic gulf-stream) produce the genial climate of our Pacific coast, pass over the low mountain ridges to the north of latitude 44°, and carry their softening effect far inland, giving to Washington Territory the climate of Virginia, and to Montana the mildness of Southern Ohio.

Professor Blodget, in his standard work, the *Climatology of the United States*, says of the Northwest:—

The assertion may appear at first unwarranted, but it is demonstrable that an area not inferior in size to the whole of the United States east of the Mississippi, lies west of the 98th meridian, and above the 43d parallel, which is *perfectly adapted to the fullest occupation by cultivated nations*. It has an immense and yet unmeasured capacity for occupation and expansion.

Hon. E. D. Mansfield, Commissioner of Statistics for Ohio, whose life-long study of the questions of climate, settlement, migration, and

agricultural industries, gives his opinions deserved weight throughout the country, says, in a recent contribution to the Cincinnati *Gazette* :—

Neither lines of latitude nor boundary lines have much to do with climate, at least anywhere south of the 65th degree. We certainly cannot ignore the fact that England and Ireland are among the most fertile and productive countries of Europe, although entirely north of the whole of the United States. When we inquire for the true character of any unsettled region within the temperate zone, we must look to other conditions. Soil is largely influenced by geological elements. Temperature is most largely influenced by currents of wind, generally arising on the great ocean waters, modified by plains and deflected by mountains. What, then, is the character of what we may call the interior of the great Northwest?

The Northern Pacific route is very near the southern boundary of the vast productive region we speak of, and therefore the theory of a too rigid climate will not, in any event, be applicable to it. But we shall here trace the climatic line of cereal production in reference to this great region generally, believing the great question of the value of lands, and of the road itself, is the *question of actual settlements*. Are they practicable and probable? If we suppose an arable country, half as fertile as that of Ohio, we shall have a country which in a few years will be settled and valuable. Let us look, then, first of all, to the isothermal lines—lines of vegetable production. If we knew nothing of Japan, we should know all about its vegetable products (other things being equal) by knowing that the isothermal lines of Ohio pass through Japan. Turning, then, to the lines of cereal production, we find (see Blodgett's maps) that, proceeding from the point where the 40th degree north latitude touches the Atlantic coast, the isothermal line tending north reaches Lake Erie near Cleveland, passes through or near Chicago, crosses the Mississippi above the 45th degree, goes north of the Upper Missouri, and crossing the boundary of the United States, ascends to the 50th degree into the Valley of the Saskatchewan. Taking the isothermal line of Nantucket (Mass.), and it passes still higher. We find, then, in point of fact, that the climate of the region from the Upper Missouri to the Saskatchewan is substantially that of New York, and that it is exactly the climate which in Europe is deemed best for grain growing.

An army officer, who has spent a dozen years in Montana, writes:—
 “I have travelled in many countries, and been stationed in many different portions of America, but I have never found a climate that suited me so completely as this of Montana.” A resident of Northern Montana writes, that on January 9th, 1871, his family spent the day without fires, and with open windows. On the 30th of December, 1870, Judge Rice, of Maine, plucked a bouquet of flowers in the open fields in Washington Territory. Rev. Mr. Spaulding, the venerable missionary who has spent thirty years in Idaho, Montana, and Oregon, assures us that herds of domestic cattle are wintered on the slopes of the Rocky Mountains, with no food but the abundant bunch-grass.

This could not be done in Southern Illinois. Stock-raisers in Wyoming and Southern Idaho drive their herds north, to the vicinity of the Northern Pacific route, to spend the winters, on account of the milder season, less snow-fall, and abundant grazing. Buffalo make similar migrations, taught by instinct and experience. A few definite facts like these (and they could be multiplied without limit) outweigh volumes of climatic theory. The subject of the temperature of the belt within which lies the Land Grant of the Northern Pacific Railroad, cannot be better summed up than by repeating that Minnesota has the average temperature of Northern New York without its discomfort and chill; Dakota, that of Iowa, with a drier and more invigorating air; Montana, that of Ohio without its dampness and changeableness; Washington and Oregon have the climate of Virginia, with more rain and cooler summer-nights.

Moisture.—One of the causes heretofore cited as helping to produce the mild seasons of the New Northwest—namely, the depression of the mountain ranges toward the north—may also account for the equable rain-fall in nearly all parts of this vast area. The southwest winds, saturated by the evaporation of the tropics, carry the rain-clouds eastward over the continental divide, and distribute their moisture over the Fertile Belt stretching from the mountains to the lakes. Further south the mountain ridges, with their greater altitude, act as a wall against the warm, moist, west winds; hence the colder winters and the comparative dryness of much of the region south of Montana and east of the mountains. That the country tributary to the Northern Pacific Railroad, and embracing its Land Grant, has, with some exceptions, an adequate supply of atmospheric moisture for all purposes of agriculture and stock-raising, there is no question. The proof is abundant and conclusive, and is made up of the concurrent testimony of settlers who have spent years in all portions of the great Fertile Belt, and of Government officers who have measured and reported the rain-fall for successive seasons. Mr. Mansfield, in the course of the same paper from which we have quoted above, says on this point:

But there is another element of climate which we admit to be of the highest importance, and which has proved the great point of difficulty with that great central region through which the Union Pacific passes. This is the aridity or want of rain. In the whole of that great arid plain, on the eastern side of the Rocky Mountains, there is only a breadth of fifteen miles just at the foot of the main ridge where the clouds are condensed, in which agriculture can be carried on without

irrigation. The same thing is true of that vast country on or near the 35th parallel. This is the reason why New Mexico, Colorado, and that section, have not become populous. Exactly the reverse is true of that Northwestern region of which we speak. The great currents of air which have left the central region comparatively rainless, have, on the other hand, given ample supplies of water to the great Northwest. * * * * *

And here we have to state, in behalf of this most valuable and interesting region a fact which seems almost incredible, but of the truth of which there is no doubt. It is this: that in the high latitudes, north of the Missouri river, *less snow falls in winter, and more rain in summer*, than in the latitudes below. Hence the Northern Pacific has, in fact, far less climatic difficulties to encounter on the line of the route than has the Union Pacific. This is an all-important fact, and while we might cite several authorities on this point, we shall cite only one, which we think conclusive. This is the memorandum on the climate of the Northern Route, prepared by Gen. George B. McClellan, and found in the "United States Explorations," Vol. 1, pages 128-130. There is no doubt of the fact, as stated by both Blodget and McClellan.

Admittedly there are detached portions of the vast region tributary to the Northern Pacific Railroad, where for the present the rainfall is insufficient for most crops, and irrigation is necessary, yet even in such localities the grazing is usually good. But, making ample allowance for the occasional absence of sufficient moisture, this Land Grant of the Northern Pacific Road is, as a whole, abundantly irrigated by nature. The wonderful network of living brooks, lakes, streams, and navigable rivers, with which this region is supplied is perhaps its most striking feature.

Soil.—Those who have traversed the whole of the Fertile Belt from the Mississippi to Puget Sound claim that there is no other section of the Continent of equal area which, all things considered, surpasses this in natural resources, including a fertile soil; and the evidence is superabundant in support of this view. That the average of soil in those portions of Minnesota, Dakota, Montana, Idaho, Washington, and Oregon adjacent to the Northern Pacific Railroad is good, there is absolutely no question. Of alkali-plains, sand, and sage-brush there is next to none at all on the route. Of Minnesota (in the richest portions of which State the Northern Pacific Railroad and its branches receive six million acres of land) Governor Marshall says:

The area of this district of Northern Minnesota and the Red River valley in Dakota, through which the Northern Pacific Railroad will run, and to which it will pour out its wealth of production, is scarcely less than 60,000 square miles, or 38,400,000 acres. Its capacity for producing the cereals may be estimated from the

present production of the tilled lands of Minnesota. The reliable estimates of the Commissioner of Statistics of Minnesota give the area cultivated in 1869 at 1,100,000 acres (about 2 per cent. only of the whole area of the State), and the yield of this area the present year at over 20,000,000 bushels! Upon this basis, the Northern district I have described is capable of producing the enormous quantity of over SIX HUNDRED MILLION bushels—many times greater than the entire wheat crop of the United States, and equal to that of the whole world! The valley of the Red River alone, I believe, is capable of producing breadstuffs for the whole United States.

* * * * *

The country west of the Red River valley across to the Missouri River is a fertile plain covered with nutritious grasses, but destitute of timber, except along the streams. The soil seems everywhere good, and the surface favorable for farming.

The U. S. Land Commissioner, Hon. Joseph S. Wilson, in his report for 1869, said:

The Northern Pacific offers a pretty safe guarantee against those formidable obstructions from snow which the more southern route has already experienced. The undeveloped resources of this Company are attracting the attention of capitalists. Its landed subsidy is double that of the Union Pacific Road. Comparatively a very small proportion of this line runs through an elevated region. Governor Stevens [who repeatedly passed over the route of the Northern Pacific Road, and studied it in all its aspects] was of the opinion that *not more than one-fifth of the land from Red River to Puget Sound is unsuited to cultivation, and that this fifth is largely made up of mountains covered with bunch grass and valuable timber and filled with the precious metals.* It is evident that an immense agricultural area is here awaiting development. The great wheat-growing regions on the left bank of the Upper Missouri promise speedy settlement upon the opening of an avenue for the transportation of their products to market. Each section of the Road as it is completed, will, from local traffic alone, find ample returns for its investment.

Quincy A. Scott, describing the Yellowstone valley, in Montana, says:

Some of the other valleys are beautiful. This is grand. It abounds in magnificent scenery, most excellent farm-sites, and water-powers. The soil is very rich and fertile, timber very convenient, coal and iron cropping out in abundance at different points, and at others evidence of rich deposits of copper, while the surrounding mountains are full of gold and silver-bearing quartz.

To quote once more the language of Hon. E. D. Mansfield:

It being shown, then, that these difficulties—winter snows and want of water—which are so formidable on the Union Pacific route, do not exist at all on the Northern, but, on the contrary, that there is light snow, abundant rains, and the isothermal (climatic) lines of England, Ireland, and Germany, we may turn for a moment to the general character of the soil. [Here Mr. Mansfield quotes various authorities.]

Thus the testimony of the most intelligent and scientific observers agree (and we might cite many more) that in this great region—on the south side of which the Northern Pacific will pass—there is soil, climate, moderate seasons, and abundant water, equal to those fertile and productive sections of the temperate zone in Middle and Northern Europe, which have there brought population, wealth, and arts.

In 1805, Lord Selkirk began colonization in British America, on the northern side of this Northwestern Fertile Belt, and claimed for this tract a capacity to support thirty millions of people. This would only be sixty persons to the square mile, and this is less than in countries far inferior.

Blodget, in his *Climatology*, says of this fertile region beyond the British border, which will soon be furnishing traffic to this Road :

All the grains of the cool, temperate climate are produced abundantly. Indian corn may be grown on both branches of the Saskatchewan [500 miles north of the Northern Pacific Railroad Land Grant], and the grass of the plains is singularly abundant and rich. Not only in the earliest period of exploration of these, but now, they are the great resort for buffalo herds, which, with the domestic herds, and the horses of the Indians and the colonists, remain on them and at their woodland borders through the year.

Governor Potts, of Montana, states that at an agricultural fair in that territory, in 1870, he saw various samples of wheat, which yielded 80 bushels to the acre. Forty bushels to the acre is not an unusual crop in the Yellowstone valley. If the average yield is thirty bushels it is double that of Ohio. The record of the production of wheat in the Columbia valley shows that its soil is equal to that of the Yellowstone. The Walla Walla land is as good as that of the Columbia—forty bushels of wheat to the acre, weighing sixty-three pounds to the bushel, roses and other flowers blooming in the open air on Christmas Day, and fruit for market in two years after transplanting of the grafts, being the proof. The valleys of the Pelouse, Snake, Spokane, Bitter-root, Jocko, Flat-head, and Deer Lodge, are very fertile. The settlers in the Gallatin, Madison, and Jefferson valleys claim to have the best of soil and climate. That the climate of that New Northwest, which is now opening to settlement, travel, and trade, is such as to make a congenial home for the migrating millions of central and northern Europe, and the crowded portions of our own land, there is no doubt. That its soil, its resources of minerals and timber, its matchless water-courses, and its accessibility to the commerce and the markets of the world, also adapt it to be the residence of a numerous and thrifty population, is equally unquestionable.

TIMBER AND MINERALS.

Unlike the lands of any and all other routes of trans-continental railway, the Land Grant of the Northern Pacific Railroad has ample supplies of timber for the construction and maintenance of its line, and for the supply of its present and future population; and this is so situated that it may be transported from either terminus over the road as fast as constructed, and at the same time distributed east and west from the Rocky Mountain centre. In Minnesota the Road traverses a hundred miles of forest. Thence westward the streams and lakes are usually fringed with timber. The materials for an unlimited lumber trade exist on and near the western end of this Land Grant, and maintain with a single interruption to the eastern foot of the Rocky Mountains. Forests of fir of three varieties, of cedar of two varieties, of pine, spruce, hemlock, cypress, ash, curled maple, and black and white oak, envelope Puget Sound, and cover the larger part of Washington Territory, surpassing the woods of all other countries in the size, quality, and quantity of the timber. The firs in many localities will cut 120,000 feet to the acre. Trees are common whose circumferences range from 20 to 40 feet, and whose heights vary from 200 to upwards of 300 feet. The paradox of firs too large to be profitably cut into lumber is to be seen in various parts of Western Washington. The cedars of Washington are as thick through as the firs, but not so tall. Forests yielding 100,000 feet and upwards per acre are common around Puget Sound. The wood of the firs and cedars, unequalled for lightness, straightness of cleavage, and resistance of moisture, stronger than oak, and more retentive of spikes and tree-nails, will supplant all other timber for ship-building on both shores of the Pacific Ocean. Last year Puget Sound exported above 180 million feet of lumber, 20 millions of lath and shingles, and a large amount of masts, spars, and piles. The product of the as yet scarcely scarred forests of Washington Territory was sold in California, South America, Australia, Japan, China, the East Indies, and Europe. The Land Grant of the Northern Pacific Railroad covers several million acres of these magnificent fir forests, which are not only the wonder of travelers, but, what is more to the point, they constitute an element of vast wealth to the Company, and hence of security to its creditors.

Coal.—This Land Grant has an abundance of fuel in addition to its timber. Bituminous coal of a good quality outcrops for 100 miles on the eastern rim of Puget Sound. Three veins have been opened

which can be cheaply worked, the lowest being 16 feet thick. West of the Cascade range of mountains coal is found and mined at different points all the way from Willamette Valley to Bellingham Bay. The San Francisco ocean steamers are supplied from the Puget Sound mines. In 1870, twenty-five thousand tons of Coal were shipped to San Francisco from a single mine on Puget Sound. Coal has been found near the Cowlitz and Snoqualmie Pass of the Cascades. It outcrops on the Yellowstone and the head waters of the Missouri. It is extensively mined for government and public use at the great bend of the Missouri. It is certainly known to underlie much of the area from the Rocky Mountains to the Mississippi on the line of the Northern Pacific Railroad. In Minnesota it has been discovered on a tributary of the river of that name, and on the Sauk. In Dakota it outcrops on the banks of the Cheyenne. It abounds in British America.

Other Minerals.—At the eastern end of the Grant, and near the line of the Road, are the well-known Lake Superior mines of copper, and of the famous magnetic iron ore. Deposits of iron have been discovered within two or three miles of where the Northern Pacific route crosses the Cascade range. At an early day it is the intention of the Railroad Company to furnish itself with rails from the abundant supplies of iron ore distributed at various points along its line. From the eastern foot-hills of the Rocky Mountains to Puget Sound this Land Grant belts as rich mineral deposits as are to be found on the continent, consisting of gold, silver, platinum, lead, copper, iron, and rock salt. The gold yield of this region was Twenty Million dollars in 1870, and the evidences increase of the richness and permanent character of these mines. Although the precious metals are reserved from the grant, their presence within its limits, in practically inexhaustible quantities, adds very greatly to the value of adjacent railroad lands. The iron and coal lands, which are the property of the Railroad Company, will prove one of its most fruitful sources of wealth.

COMPARED WITH OTHER GRANTS.

A second measure of the value of this Land Grant may be taken from the sales of the lands granted by Congress to the Illinois Central Railroad, to the Kansas Pacific Railroad, and the sales of the Minnesota School Lands.

The Illinois Central received a Land Grant of 2,595,000 acres, mainly treeless prairie. Sales from this grant up to January 1, 1869,

had amounted to \$23,793,255, including interest on deferred payments, and there remained unsold 526,690 acres, worth \$10 per acre. In other words, the Illinois Central's grant of 2,595,000 acres, when all sold, will have yielded the Company fully \$30,000,000—an average of more than \$11 per acre, and more than the total cost of building the Road. So safe were the credit sales of these lands that, at the close of the year 1867, upwards of 15,000 individual accounts were on the Illinois Central Company's books, and not a suit or a claim was pending in court in relation to any one of them.

Financiers and dealers in public and corporate funds may better appreciate the value of the Illinois Central Grant from the fact that in 1868 the Company paid its stockholders dividends amounting to 22 per cent., and the public bought its shares at 147. At the bottom of this prosperity and confidence was a Land Grant of 2,595,000 acres. The Northern Pacific Road's grant is six times as large per mile and *twenty times* as large in the aggregate as the Illinois Central's; and on the question of the comparative *intrinsic* worth of the two grants, we have the published opinion of John Wilson, Esq., who was long at the head of the Land Department of the Illinois Central Road. Mr. Wilson says:

With all the information I have collected, and an experience enjoyed by but few, I consider the Grant to the Northern Pacific Railroad worth from fifty to one hundred per cent. per acre more than the Central's. Comparing this Grant with that of the Illinois Central, I think it a small estimate to say that if this Grant is properly managed, it will build the entire Road, connecting with the present terminus of the Grand Trunk, through to Puget Sound and head of navigation on the Columbia—fit out an entire fleet of sailing vessels and steamers for the China, East India, and coasting trade, and leave a surplus that will roll up to millions.

The Kansas Pacific Railway has adopted the policy of disposing of its lands principally to an influential Immigration and Land Company, so as to force the early settlement of the region through which it runs. In 1869 it disposed in this way of 428,568 acres, at prices varying from \$1.00 to \$8.00 per acre. The road received, on an average, \$3.35 per acre for soil that is within the limits of what is described on American atlases as "The Great American Desert." The Immigration Company received for these lands an average of \$4.31 per acre, which sum really should be the measure of their value for that year. During 1870 the Union Pacific Railroad Company sold 294,000 acres of land, at an average of \$4.46 per acre.

The School Lands of Northern Minnesota will be in part within the limits of the Northern Pacific Railroad Grant in that State. The average price at which they were sold in 1865 was reported to the Minnesota Legislature as \$6.30 per acre.

Now what is this landed empire of 50,000,000 acres worth? If it sells for only the low price per acre at which the Kansas Pacific Road forced off its lands, while it ran through and stopped in a wilderness of buffalo grass, the proceeds will be over \$165,000,000. If nursed and sold on judicious credits, as were the lands of the Illinois Central, the proceeds would be, on the basis of that road's sales, \$550,000,000! If sold at the average price of the Minnesota School Lands, the proceeds will be \$350,000,000. The elements for appraising the market value of the Northern Pacific Land Grant sufficiently exist to make it absolutely certain that it can be sold for a sum much greater than the cost of constructing and equipping the road. The policy of the Company, however, will be to sell its lands at such moderate prices as to render their speedy absorption and settlement certain, rather than hold them for an extreme advance, at the expense of the development of the country.

SETTLEMENT—IMMIGRATION—COLONIZATION.

With the attractions of climate, soil, and scenery, which Nature has given the New Northwest, the simple building of the Northern Pacific Road would suffice ultimately to people the country along its line. Accessibility is about all that is needed to turn the tide of migration into this fertile region. Already thousands of settlers are following, and often preceding, the surveying and construction parties on the Road through Minnesota and Dakota. The same is true on the Pacific slope. As fast as the Road can be built, it will find a population already on its flanks. But, to render this natural movement certain, rapid, and constant, the Northern Pacific Railroad Company is organizing an Immigration Bureau in connection with its Land Department. The system adopted is practical, though new, and on a scale worthy of the great trust the nation has confided to this Corporation.

In carrying out the details of this scheme the Company will aim:

1. To employ as its Land and Emigration Agents, at home and abroad, only men of the highest character.
2. To permit no representations to be made by its authority which the facts will not fully

warrant. 3. To promote, as far as possible, the formation of colonies, both in Europe and the older States of our own country, so that neighbors in the old home may be neighbors in the new; so that friends may settle near each other, form communities, establish schools, and, in short, avoid many of the traditional hardships which have usually attended pioneer life. 4. To exercise over emigrants, *en route*, whatever supervision their best interests may require, seeing to it that transportation charges are the lowest attainable, that accommodations on ships and cars are comfortable, that their treatment is kind, their protection against fraud, compulsion, and abuse of all sorts, complete, and that every dollar of unnecessary expenditure on the way is avoided, and the emigrant enabled to husband his means for the work of starting a homestead. The Company intend to complete the work of caring for the settlers who move to the line of their Road by furnishing lands at such moderate prices, and long credits, that the poorest need not remain landless; by aiding all who prefer it to secure homesteads from the Government domain; by transporting settlers, their families and goods at reduced rates; by seeing to it that all the elements of a sound civilization, including educational, church, and mail facilities, keep pace with the progress of the Road and the growth of communities.

POSTSCRIPT.

The facts regarding the climate and fertility of the Northwestern Belt are so opposed to prevalent inherited opinions, that it is difficult to tell the whole truth in these regards without appearing, to the uninformed, to exaggerate for a special purpose. Desirous of keeping considerably within, rather than pass beyond, the actual facts, we submitted that portion of this pamphlet which treats of the above topics to Mr. Lorin Blodget, author of *Blodget's Climatology*, and unquestionably the highest scientific authority on this subject either here or elsewhere. Mr. Blodget thus heartily corroborates the estimate herein given of the resources and capabilities of the Northwest. His testimony regarding the rain-fall along the Fertile Belt has special interest:

JAY COOKE & Co.

GENTLEMEN:—I have carefully reviewed, in the proof-sheets, the statements you make in regard to the climate and cultivable capacity of the great region tributary to the Northern Pacific Railroad. I have

also examined anew the evidence and observations accumulated by me since the publication of the general volume from which you quote. I am therefore prepared to judge of the whole subject with proper caution, and to assure you that abundant evidence in detail can be furnished in support of the views I express.

I have no hesitation in saying that the anticipations you have of the future of that great section fall below, rather than exceed, the results that will be realized. Its advantages of climate and of soil alike are still imperfectly appreciated, even by those who have given most attention to their examination. The plains of a vast area there lie upon rich friable limestone; and, instead of the arid spring and summer which prevail over the plains of lower latitudes, there is here a fair and even an ample supply of rain at these critical seasons. It is the cold season that is conspicuously dry, and that reduces the annual quantity of rain to about 25 inches. I should now modify the illustrations of my rain maps for spring and summer, in the Northwest, by adding two or three inches to each, thus adding about 5 inches to the whole quantity for the year. No observations of rain-fall existed for that belt in 1857 when my charts were first prepared, and there was a constant exaggeration of the aridity of the plains generally pressed on the public by most writers and travelers.

The quantity of 8 inches of rain-fall each, for spring and summer, or 16 inches for the growing season, is as ample there for the purposes of agriculture as 24 inches would be at the 40th parallel.

From my earliest knowledge of that rich Northwest, derived from Sir George Simpson in 1851, and from all the scientific and other surveys subsequently conducted, I have been deeply impressed with the beauty, fertility, and mildness of climate in this future Germany of the American continent. The line of the Northern Pacific Road was claimed by me, long before Governor Stevens' survey was organized, to be naturally the most favored in the passage of the Rocky Mountains, in exemption from heavy snows, and in capacity for settlement along the entire line. It will open up a country long closed to general knowledge by the policy of the Hudson's Bay Company, but which is now universally admitted to be highly valuable. Its real merits, however, will only be properly known when it is actually occupied.

Very truly

And respectfully yours,

LORIN BLODGET.

Philadelphia, Feb. 24th, 1871.

SOME VALUABLE OPINIONS.

DURING the debate in Congress which preceded the passage in May, 1870, of a Joint Resolution conferring certain additional privileges upon the Northern Pacific Railroad, a number of Senators and Representatives felt constrained to oppose the measure. The opposition was zealous and long-continued, and was based mainly upon the ground that the Land Grant of the Company was already amply large and valuable to pay the entire cost of building and equipping the Road. Better evidence of the value of the Company's grant of land could not be desired than the admissions of its opponents. A few of these we give below.

In the Senate, March 2d, Mr. Casserly, referring to the Northern Pacific Railroad land grant, said :

An empire in itself, I beg, gentlemen, to observe. More than that, it is the very richest land grant, by a large percentage, which any railroad company has been fortunate enough to obtain. In proportion to its whole extent, vast as that is, it contains more good arable land than any other large railroad grant, except the grant to the Illinois Central Railroad, in 1850.

Mr. Harlan, of the Senate, placed this opinion on record :

These lands are valuable lands. No person can study the topography of the country, can bring to bear his knowledge of climatic influences, without knowing that these plains are fertile, that they are clothed with grass and timber; that it is a vast and valuable grass-producing and grain-growing region; a large proportion of it covered with forests, the like of which cannot be found elsewhere on this continent, from which the great commercial Powers of the world are now obtaining the timber out of which they construct their merchant fleets. This is the character of the domain already granted. I say it is good; it is valuable; it is worth untold millions of money, and will produce it just so rapidly as the Railroad shall have been constructed, in order that purchasers may reach it and bring it into use.

Mr. Hawley, of the House of Representatives, said :

* * * And not only that, but it is a country which produces all kinds of fruit in the greatest abundance, and it is a land where stock can be kept without any housing. The greater portion of the country through which this Road runs has a climate so mild that stock is wintered there without any feeding or shelter.

Senator Howell, of Iowa, with a practical knowledge of the value and rapid appreciation of Western lands in the vicinity of railroads, said :

I think that when this Road is extended and built, as it will be gradually from each side, from the ocean and from Lake Superior, as it progresses towards the centre the greater portion of the land will become as valuable as the land in Iowa through which our railroads run.* You claim that the land is good land. It is universally understood that the land is good.

Of the western portion of this Grant, Hon. Sidney Clarke, of Kansas, another expert in the value of Western lands, expressed this opinion in the House of Representatives, May 25th :

Why, sir, the facts are, that on the western slope of the Rocky Mountains, through Washington Territory to the Pacific Ocean, which this Road penetrates, stretching out in all directions, the most dense and valuable forests in the world are to be found, which will be worth eventually several hundred million dollars. Our forests are becoming rapidly depleted, so rapidly, indeed, that within the short space of fifty years one of the most important questions which will be submitted to legislators and to the political economists of the country will be, how this great and necessary element of wealth, power, and convenience can be maintained against this rapid destruction and depletion. I have no hesitation in saying, Mr. Speaker, that in all this belt of country west of the Rocky Mountains, there is a forest which, opened up by railroad, will, for the purpose of shipbuilding and for all the purposes of commerce at home and abroad, be worth hundreds of millions of dollars, however extravagant these figures may seem at the present time.

We could fill a volume with similar extracts from the debates in Congress, but have only space for the following unsolicited testimony of Hon. Allan G. Thurman, of Ohio, given in the United States Senate :

Why, sir, I affirm, and affirm without fear of successful contradiction, that the grants made by the charter of this Company to the Company will defray every dollar of expense of building and equipping the Road, so that the result of the whole thing is simply that the Government builds and equips this Road and gives it to a private corporation. Say what you will about it, argue as much as you please upon it, talk as much as you choose of the advantages to the country of the Road, the simple, naked result of the whole thing is that the Government builds and equips the Road and gives it to a private corporation to be a monopoly in the hands of that corporation. That is the whole of it.

* Iowa lands adjacent to lines of railroad are worth from \$10 to \$25 per acre.

FUTURE BUSINESS OF THE ROAD.

THE Northern Pacific Railroad will centrally traverse and draw its traffic from a fertile belt of country 1,800 miles long and at least 700 in width, which is now wholly unsupplied with railroads or other adequate means of transportation. For the carrying trade of this vast region the Northern Pacific Railroad will have no rival. The existing line to the Pacific has an ample field for a prosperous business of its own; and, owing to insurmountable difficulties of surface and climate between Lake Superior and James' Bay, a trans-continental road through the British Possessions, north of the Northern Pacific route, will not be seriously contemplated by practical people.

Will a country of this extent and character furnish a sustaining business to one line of road? The question answers itself. But the case does not rest on this general inference alone. The States, Territories, and Provinces dependent upon the Northern Pacific Railroad as their thoroughfare of travel and traffic are already populated to a very considerable extent, and enjoying fully organized local governments. The country directly tributary to the Northern Pacific Road contains quite as many people as did the States and Territories traversed by the first Pacific Road when it was built, while the producing capacity of the Northern belt is at least five fold greater than that of the Central.

It was predicted that years would elapse before the Union and Central Pacific Roads could reach a paying business. Look at the facts: Although built by the longest line between the Lakes and the Pacific ocean, through a belt of country much of which cannot be occupied, and over a mountain region presenting great elevations and most difficult grades, these two roads, which for commercial purposes may be regarded as one, earned enough in their *first full year of through business*, over and above running expenses, to pay six per cent. interest on a fair estimate of their cost. How many roads in any part of the country can make a better showing? The official statement of the earnings and expenses of the Central Pacific Road during six years is as follows:—

	Miles operated.	Gross Earnings.	Operating Expenses.
1865,	31 to 56	\$401,941 92	\$121,669 53
1866,	56 to 94	864,917 57	200,710 61
1867,	94 to 137	1,470,653 50	330,913 33
1868,	137 to 468	2,300,767 17	843,166 54
1869,	468 to 742	5,670,822 25	2,993,523 19
1870,	742 to 900	7,920,710 98	4,060,564 95
Total,		\$18,629,813 39	\$8,550,548 15

During the same period of six years the net earnings, the interest on bonded debt, and surplus of net earnings over interest liabilities were as follows:

Net earnings,	\$10,079,265,24
Interest on bonded debt,	4,184,221,00
Surplus of net earnings over interest,	\$5,895,044,24

The financial representatives of the Road make this comment on the above figures:—

From the foregoing tables it will be seen that the Central Pacific Railroad has earned, in six years, more than \$10,000,000 *Net* over operating expenses, and nearly \$6,000,000 *over operating expenses and interest on its Bonds*; while, during *four years and a half* of that time, the Road was under construction, without through business, and, for the first three years, with less than 100 miles in operation.

It would have been difficult, before the construction of the present Pacific Road, to say of what would consist the enormous traffic it at once obtained and now enjoys, yet sagacious men knew the business was awaiting the Road. The builders of the Union and Central Pacific Roads deserve much credit as the pioneers of a great movement. They took the risk of a vast experiment, and their demonstration of the feasibility and profitableness of a trans-continental road by a most difficult route, has rendered comparatively easy and wholly safe the construction of a second road, on a short line, with easy grades, and through a country of singular mildness, fertility and variety of resources. The success of the first being already proved, the success of the second, under the circumstances, is doubly assured.

To enumerate some of the sources of that traffic which now awaits the completion of the Northern Pacific Railroad:—

1. The Road will command the vast interior trade that now supports nineteen steamers of the Oregon Steam Navigation Company, which navigate the lower Columbia, the upper Columbia, Clark's Fork, the Snake River, Lake Pend d'Oreille, and Puget Sound. The dimensions of this traffic in Oregon, Idaho, Washington and Montana may be judged by its profitableness. The Company was organized in 1860, with a capital of only \$172,400. Up to June, 1869, it had expended over \$2,000,000 in the construction of steamers, railroads around the Dalles and Cascades, wharves, etc., and paid its stockholders, besides, over a million of dollars in gold as dividends.

2. Of the existing Lumber trade of Puget Sound, westward by sea, we have given a glimpse. The Railroad will create a proportionate trade eastward. The shipments of lumber, by vessel, from Puget Sound in 1870 equalled 18,000 car loads, or 900 trains of 20 cars each. And this traffic is yet in its infancy. What must it contribute to the business of the Northern Pacific Railroad?

3. The Railroad will do most of the business now done by steamboats on the upper Missouri and Yellowstone rivers. That business is of long standing and very considerable amount.

4. It will take the bulk of the large business now done all over the Northwest by pack-animals and wagon-trains. It will perform the most profitable part of the mail service of five States and Territories, and will ultimately carry the Chinese and Japanese mails.

5. It will take the place of the present wagon service in transporting supplies to the twenty-eight northern military posts—a service which now costs the Government between Six and Seven Million dollars yearly. In this way alone it will save to the nation at least Three Million dollars annually, or three per cent. on the entire cost of the Road.

6. Where the Road crosses the Red River of the North it taps 1500 miles of inland navigation, down the Red River, through Lake Winnipeg, and up the Saskatchewan to the foot hills of the Rocky Mountains. Light draft steamers have long navigated this route. Along the greater part of this water-way the soil is good, the climate like that of Minnesota, and the settlements numerous. The trade of this vast region beyond the national boundary, including the transportation of supplies for the Hudson's Bay Company, will at once and permanently form part of the business of the Northern Pacific Road.

The Hudson's Bay Company and Winnipeg settlers now ship their supplies over the St. Paul branch of the Northern Pacific Road to its

present terminus, and thence transport them with teams 150 miles to the nearest steamboat landing on the Red River.

7. The tide of emigration, already pouring into the country now opening to settlement, with the thousand needs of new and thriving communities, will contribute a large revenue to the Road. For many years the transportation of settlers, their families, goods and supplies (though done at low rates) to all parts of the Fertile Belt adjacent to the Northern Pacific line, will form a constantly increasing source of income to the Company. As a route for tourists the Northern Pacific must always be popular. The summer pleasure travel over the line will be increasingly great.

8. The shipment of cattle over the Northern Pacific Road promises to equal that upon any line in America. The grazing lands of the Fertile Belt are admittedly unsurpassed in character and extent. The "bunch grass" covers valleys and mountains. It is grass in summer and cured hay in winter. No drouth kills it—no heat diminishes its nutritive qualities; wherever it grows cattle require no other food throughout the year, and thrive without shelter. Stock raising will continue to be, as it now is, one of the most lucrative branches of business in the Northwest, and with this great thoroughfare furnishing quick transportation to a ready market, this interest cannot but reach enormous proportions. The experience of the Kansas Pacific and Union Pacific Roads, in suddenly developing an extensive trade in cattle from the Southwestern plains furnishes a suggestion of what may be expected by the Northern Pacific Road.

9. The grain-producing capacity of Minnesota is well known. The Northern Pacific Road and its branches will drain two-thirds of the wheat-lands of Minnesota, and the trunk line will traverse, on its way to the Pacific, many million acres of equally good soil. Indeed, the Road may be said to traverse, and open to the world's markets, that region which, at a very early day, is to furnish the bulk of the surplus wheat crop of the United States. How much business must the grain-product of the Northwest, present and future, furnish to the Northern Pacific Road? With one-fiftieth part of her lands under cultivation, Minnesota alone exported grain enough in 1870 to load 2,500 trains of 20 cars each.

10. The many navigable rivers crossed and recrossed at convenient intervals by the Northern Pacific Railroad, will contribute to it a large traffic by bringing in the trade of the country for many miles

on both flanks. For example, on the Pacific slope, the waters of Puget Sound, the Cowlitz river, the Willamette, the lower and upper Columbia, the Snake, the Clark, and Lake Pend d'Oreille—all will serve as feeders and outlets for the concentration and distribution of freights and passengers upon and from the great central thoroughfare, the Railroad. From the head of navigation on the Columbia's branches it is only 230 miles across the mountain country to the navigable waters of the Missouri on the east. This stream and the Yellowstone drain large tracts of fertile country, and both will bring their tribute of trade to the Railroad where rail and river intersect in Dakota. Two hundred miles further east, the navigable Red River is crossed, bringing to the Road, as elsewhere stated, the trade of 1,500 miles of valley lands. At their eastern terminus the two arms of the Northern Pacific Railroad connect with the commerce of the Mississippi at St. Paul, and the commerce of the great Lakes and the St. Lawrence at Duluth on Lake Superior.

This lake and river system of the Fertile Belt is obviously an important element in the assured success of the Road, giving it the practical advantage of eight or ten side branch lines, without the expense of building them. But the Central and Union Pacific Road has proved a business success without having a single navigable stream tributary to it between Sacramento and Omaha—1,775 miles.

11. The Mining interest of Montana, Idaho, and Washington will at once furnish a large share of traffic to the Northern Pacific Road, and, with cheap transportation and the introduction of improved machinery, this branch of business will steadily increase. The fact, elsewhere noticed, that the product of the Montana, Idaho and Washington mines was over Twenty Million Dollars in 1870 indicates the richness of the deposits and the permanent nature of this industry. The shipment of supplies for the mining population, and the transportation of their products eastward, will in all probability render the mountain section of the route more profitable to the Road than any equal extent of agricultural country.

What the coal traffic is to many Eastern roads, the transportation of ores promises to be to the Northern Pacific. Already the Union and Central Pacific line derives a very considerable revenue from this trade—carrying the ores of the precious metals from the mines to the smelting works at San Francisco and on the Atlantic seaboard. Four thousand tons of ores, assaying from \$200 to \$1200 per ton,

now pass over the Central and Union Pacific Roads monthly. The authorities of these roads estimate that when the smelting works are enlarged to the proper capacity, not less than 1000 tons of ore per day will be shipped over their line. The well-known richness and extent of the mines adjacent to the route of the Northern Pacific Road give assurance that it will derive as great a traffic as the Central from this source.

12. Too much importance is not attached to the matter of through business between the ports of Asia and our Atlantic Coast, experience having shown that Local Traffic must always be the main reliance of all great thoroughfares. But, whatever shall be the future volume of the Asiatic trade by rail across this continent—and it will unquestionably be large—the Northern Pacific Road is sure of its full share. Its advantages in this regard are as conspicuous as in others. It spans the continent from the great Lakes to the Pacific by a line 500 miles shorter than the present finished road; and, owing to the prevailing winds and currents of the Pacific Ocean, the sailing distance between Puget Sound and the ports of China is 600 to 800 miles less than between San Francisco and China. The Northern Pacific Railroad is in the direct line of the “highway of nations.”

Such is a partial enumeration of the sources from which the bulk of the carrying trade of the Northern Pacific Railroad is expected to come. Many items, as important as some of those mentioned, have been omitted; the case is strong enough as it stands. If this exhibit seems rose-colored, it is the fault of the facts themselves, which refuse to take on any other hue! It is impossible to belittle the advantages and the future of the Road without misrepresenting both.

[From the NEW YORK INDEPENDENT, March 2, 1871.]

THE NORTHERN PACIFIC RAILROAD.

By SCHUYLER COLFAX,

VICE-PRESIDENT OF THE UNITED STATES.

MIDWAY across the continent—at the head of twelve hundred miles of Lake navigation—a thousand miles from Buffalo, the western terminus of the Erie Canal, and as near to it by water as Chicago—a hundred miles west of the longitude of St. Louis or Galena—is the young city of Duluth, the initial point of the Northern Pacific Railroad. That great work, so magnificently endowed by the Government, is already being pushed rapidly westward, under its energetic controllers; and before the snow flies next Fall it will be completed to the western line of Minnesota, where it crosses the Red River of the North—which runs northward to Lake Winnipeg—and one-eighth of its distance to the Pacific Ocean will have been accomplished. Commencing, too, this season on its western line, the work will be prosecuted from both directions; and long before the nation celebrates its Centennial Anniversary of Independence the lakes will be united by iron bands with that Mediterranean of our Northwest, Puget Sound.

Of the auspicious influence of this enterprise, which but a few years ago would have been considered so daring, the most sanguine of its friends have scarcely yet a full realization. Even taking Chicago as the starting point, it will be (*via* St. Paul, where an arm of the Northern Pacific Railroad is reached), two hundred miles less distance to Puget Sound than to San Francisco. Besides this, vessels from the Golden Gate to China sail on what is called the grand circle, instead of in a straight line; and any one testing this by a string on a globe will be surprised at the result, if they have not previously studied the effect of the rotundity of the earth, and its diminished protuberance as you go northward toward the Pole. Hence, when they have sailed eight hundred miles from San Francisco they are only one hundred miles from the entrance to Puget Sound; and this striking fact shows the ad-

vantages this route will have in commanding the through traffic of Asia with our Atlantic States, or that portion of it which will pass over the soil of this nation on its road to Europe.

Nor is this all. Development is the great duty of the Republic, after all its recent trials. Resources are the gift of the Creator. Developing them depends on the work of man. Along the line of the Northern Pacific Railroad, as it follows up the water-courses, the Missouri and the Yellowstone on this side, and descends by the valley of the Columbia on the other, a vast body of agricultural land is waiting for the plough, with a climate almost exactly the same as that of New York, except that, with less snow, cattle, in the larger portion of it, can subsist on the open range in winter. Here, if climate and fertility of soil produce their natural result, when railroad facilities open this now isolated region to settlement, will soon be seen waving grain-fields, and happy homes, and growing towns; while ultimately a cordon of prosperous States, teeming with population, and rich in industry and consequent wealth, will occupy that now undeveloped and almost inaccessible portion of our continental area.

But this Road is fortunate also in its pathway across the two ranges of mountains which tested so severely the Pacific Railroads built on the central line, and the overcoming of which reflected such well deserved honor on their energetic builders. At the Deer Lodge Pass, in Montana, where it crosses the Rocky Mountains, its altitude above the sea is 3500 feet less than the Union Pacific Railroad at Sherman, which is said to be the highest point at which a locomotive can be found in the world. And on the Pacific side of the Continent it is even more fortunate. From Arizona up to the Arctic Circle the Columbia is the only river which has torn its way through that mighty range, the Andes of North America, which in California is known as the Sierras, but which in Oregon changes its name to the Cascades. Nature has thus provided a pathway for the Northern Pacific Road through these mountains, the scaling of which, on the other line, at an elevation of over seven thousand feet (a most wonderful triumph of engineering), cost the Central Pacific Company millions of dollars, and compelled them, for seventy miles, to maintain a grade of over one hundred feet to the mile—twice the maximum of the Northern Pacific at the most difficult points on its entire route.

It is fortunate, also, in its terminus on the Pacific coast. No one who has not been there can realize the beauty of Puget Sound and

its surroundings. One hundred miles long, but so full of inlets and straits that its navigable shore-line measures seventeen hundred and sixty miles, dotted with lovely islets, with gigantic trees almost to the water's edge, with safe anchorage everywhere, and stretching southward, without shoals or bars, from the Straits of Fuca to the capital and centre of Washington Territory, it will be a magnificent *entrepot* for the commerce of that grandest ocean of the world, the Pacific.

* * * * * The Land Grant of the United States, exceeding Fifty Millions of acres in the winter-wheat region of our nation (ten times as large as the area of Massachusetts), is doubtless sufficient for the completion of the Road ; but, besides this, millions of private means are already invested in it. The bonds based on the Land Grant, and a mortgage on the Road itself, in addition, are being sold as rapidly as the money is needed ; and, as an investment, yielding about eight per cent. per year in currency, rank already with the best class of railroad securities. And thus the good work will go on with unchecked step to its final consummation, carrying the blessings of settlement, development, civilization, and Christianity with it in its progress, and literally causing the wilderness to blossom as the rose.

PROGRESS OF THE ROAD.

THAT portion of the road extending through central Minnesota from the head of Lake Superior 266 miles to the crossing of the Red River, at the eastern boundary of Dakota, is fast approaching completion. A large force of men is engaged in finishing the grade, and the track is being rapidly laid. By midsummer freight and passenger trains will be running regularly over this important division, connecting with the navigable waters of the Red River and Lake Winnipeg. A profitable business already awaits the opening of this section of the Road to the Red River Valley.

Within the last few months the Saint Paul and Pacific Railroad has been purchased by, and practically consolidated with, the Northern Pacific. The purchased line (main and branch) embraces some 300 miles of finished Road in full operation, on which a prosperous traffic is already doing. Both lines are indicated on the map accompanying this pamphlet. When completed, as they will be at an early day, the main line will extend from Saint Paul, through western Minnesota to Breckinridge or such other point as shall be deemed most advantageous, and the "branch," reaching from Saint Paul northwestwardly, will intersect the Northern Pacific line west of Crow Wing, and extend on to the British border at Pembina on the Red River, thus securing at once the carrying trade of British America. The purchased lines have liberal land grants through the richest parts of Minnesota, which accrue to the Northern Pacific Railroad Company, and the completion of these lines will give the Northern Pacific Company nearly Nine Hundred Miles of Road in this great State.

The effect of this consolidation is to remove all hurtful rivalry, and virtually give the Northern Pacific Railroad a double eastern terminus—one arm reaching to Saint Paul where it taps the commerce of the Mississippi River at the head of navigation, and connects with the Illinois and eastern system of roads;—the other arm extending to Duluth, where it meets the commerce of the Lakes and the St. Lawrence.

In the meantime work has begun on the Pacific coast. A force of men is already engaged on the line between the Columbia River and Puget Sound, and hereafter the work will be prosecuted both eastward and westward as rapidly as shall be consistent with the best interests of the Road.

Including its purchased lines the Northern Pacific Railroad Company already has 413 miles of Road in operation, and this will be increased to 560 by August next.

SPECIAL REPORT

Of a Reconnoissance of the Route for the Northern Pacific Railroad, between Lake Superior and Puget Sound, via the Columbia River, by W. MILNOR ROBERTS, U. S. Civil Engineer.

WHEN, in 1869, the Directors of the Northern Pacific Railroad proffered us the Financial Agency of their Company, we felt it our duty, before accepting the trust, and before we instituted measures for the sale of the Securities of the Company, or became identified with this great work, to cause a thorough examination of the route to be made, by agents chosen and sent out by ourselves; and we did this, not because we did not place entire confidence in the representations made to us, or doubted in the least the numerous and very able explorations already made in detail by men of the highest scientific and personal character, but because of our long-established rule to make "assurance double sure," and to take every precaution to avoid placing in jeopardy not only our own means, but the means of those who confide in our judgment.

We accordingly appointed U. S. Civil Engineer, W. Milnor Roberts, and associated with him a number of other gentlemen, with the request that they proceed to the Pacific coast, and, after a thorough examination of Puget Sound and the Columbia River—the two western termini of the Northern Pacific Road—proceed eastward along the general line of the road, *via* the Columbia River or the Snoqualmie Pass, to the passes in the Rocky Mountains, and thence to Fort Benton, and also to the valley of the Yellowstone.

Other parties, under Governor Smith, of Vermont, and Governor Marshall, of Minnesota, explored at the same time the already well-known route from Lake Superior west to the Great Bend of the Missouri; and General Hancock, the then military commander of the Northwest, having just returned from an extended tour along the Upper Yellowstone and the Missouri, furnished us detailed and accurate information regarding the intermediate portions of the route.

Our final determination to accept the Fiscal Agency of the Company was based upon concurrent favorable reports from these three sources.

SYNOPSIS.

Mr. Roberts and party first proceeded to San Francisco over the Union and Central Pacific Roads, and thence reached Portland, Oregon, by rail and stage-coach overland. In passing through Oregon, approaching Portland, Mr. Roberts was particularly struck with the beautiful appearance of the country, as an agricultural region, "already settled and cultivated far beyond our anticipations." Using Portland as a base, they explored the lower Columbia river, the shores and harbors of Puget Sound, the route for the branch line between Portland and the Sound, and ascertained the entire feasibility of crossing the Cascade Range at a convenient point north of where it is cut by the channel of the Columbia. They found numerous harbors on the Sound, any one of which would admirably serve the purposes of a vast ocean commerce and a great terminal city. Coal mines, several of which have been successfully worked for some years, were found at various points in Western Washington, showing that the fuel supply in that favored region is inexhaustible, even after its gigantic forests are swept away. To illustrate the enterprise and business-furnishing capacity of the thriving city of Portland, one of the western termini of the Northern Pacific Railroad, Mr. Roberts mentions this fact:—

The Oregon Steam Navigation Company, originated here by a few gentlemen less than ten years ago, with a capital of about one hundred and fifty thousand dollars, now owns twenty steamers running on the Willamette River, up and down the Columbia River from Portland, on Puget Sound, on two different stretches of the Columbia above the Cascades, on Lake Pend d'Oreille, and on two different portions of Clarke's Fork of the Columbia. They own two portage railroads, of their own construction, one six and the other fourteen miles long, and their capital is now over two millions of dollars, besides paying large dividends.

The magnitude and promise of the lumber trade of Puget Sound is mentioned with surprise, and the statements in this regard made in Mr. Wilkeson's notes are fully corroborated. Mr. Roberts also adds his testimony as to the remarkable mildness and attractiveness of the climate of this portion of the Pacific slope. Of the future city which is to rise at the ocean terminus of the Northern Pacific Railroad, this is said:

There is not anywhere else on the globe to be found an unoccupied field for the establishment and permanent support of a new great city, such as should form the terminus of a Continental Railroad, uniting the waters of the Pacific and Atlantic by the shortest line between the great Puget Sound indentation of the coast in the west

and the Lake Superior indentation of the coast on the east. Between these extreme points the distance by a direct line is only about 1,350 miles, being thirty degrees of longitude of forty-five miles to each degree, between the latitude of 46° and 48°

Having completed his survey of the coast region, Mr. Roberts proceeded eastward up the valley of the Columbia, on his way to the pass of the Rocky Mountains. Of the Valley of the Columbia, between Portland and the mouth of the Snake River, he says:

On the greater portion of the way a good railroad, with low grades, can be built at moderate cost. There are some miles of heavy work, but my detail notes show that the miles of easy construction predominate so materially as to reduce the average cost within very moderate limits. One fact is of more value than many theories. The fact that a private company, in the very infancy of the white settlement of this portion of Oregon, constructed first-class railroads around two of the most difficult points in the valley—one six and the other fourteen miles long, thereby securing the control of traffic and passenger travel which has paid handsome dividends on the cost—is a practical proof of the feasibility of the route along the river.

Leaving the steamer at Wallula, and proceeding to Walla Walla, the party started thence on horseback for the mountain portion of their trip. They crossed the great plain of the Columbia (180 miles) to Lake Pend d'Oreille, explored that beautiful body of water in one of the O. S. N. Co's steamers (which seem to be omnipresent thereabout), then proceeded up the valley of Clark's River. This is the route now taken by packers engaged in transporting merchandise from Portland and other points to the mining regions of Idaho and Western Montana. At every point where there were settlements the utmost interest was manifested in the Northern Pacific Railroad, which they regard as the only means of developing the great natural wealth of the interior Territories, and rendering their resources of some value to the world.

After reaching the dividing ridge of the Rocky range, Mr. Roberts spent some days examining the various Passes—Deer Lodge, Bozeman's, and Cadotte's—and the approaches to each. [Deer Lodge Pass is the most southern, and has a probable elevation of 5,000 feet above the sea; Cadotte's is the most northern, and has a considerably greater altitude; Bozeman's is a subordinate pass, east of Deer Lodge, on the same route, and has an elevation of 4500 feet.] Of the remarkable Pass at Deer Lodge, well named the Gate of the Mountains, Mr. Roberts says:

The whole forty miles from Deer Lodge City to the summit of the Rocky Mountains, by this route, can be built as cheaply as roads are built through prairie countries

generally. A little more work will be required in passing on the east side, down Divide Creek to Wisdom or Big Hole River; but the line will be highly favorable as an average all the way down to the Jefferson Fork of the Missouri River. * * *

A remarkable circumstance connected with this Pass will convey a very clear view of its peculiarly favorable character. Private parties engaged in gold mining, in the gold field which exists abundantly on both sides of the Rocky Mountains, have dug a ditch across this summit which is only eighteen feet deep at the apex of the divide, through which they carry the water of "Divide Creek," a tributary of the Missouri, across to the Pacific side, where it is used in gold washing, and the waste water passes into the Pacific Ocean. This has been justly termed highway robbery. The route running down the Jefferson Fork, crossing the Madison Fork over to the Gallatin, and up that valley to near the Bozeman Pass, is very favorable, admitting of easy grades and curves at moderate cost. Some heavy work of grading occurs on both sides of Bozeman's Pass.

The Bozeman Divide is not so favorable as that at the Deer Lodge Summit, from the fact that the ascent to it on either side is less gentle, though, in comparison with other Passes of the mountains, it is quite favorable, being practicable without the aid of a tunnel, with no more costly approaches.

PROBABLE COST OF THE ROAD.

On this important point the Report says:

The line upon which the estimate is to be given runs from the head of Lake Superior across the Mississippi, the Red River, and the Dakota River to the Missouri; thence crossing the Missouri into the valley of the Yellowstone, and along that stream to Bozeman's Pass, through the Belt range of mountains; thence down the Gallatin valley, crossing the Madison River, and over to the Jefferson valley, and along that to the Deer Lodge Pass of the Rocky Mountains; and along Clark's valley to Lake Pend d'Oreille; and from the lake across the Columbia plain to Lewis or Snake River; down that to its junction with the Columbia; along the Columbia River to the Cowlitz River; up the valley of the Cowlitz, and down to Puget Sound at its southern extremity, whence the road may be carried along either side or both sides of the Sound, as far as may be desired, to any port or ports which shall be selected.

Although I would not feel prepared without having the results of further surveys to pronounce this the best possible route which can be found between Lake Superior and Puget Sound, it certainly presents important advantages, and *is known to me to be eminently practicable.* Shorter routes may be traced; but probably none which will be cheaper per mile, or which will offer so good a profile for profitable service as a great main trunk Railroad thoroughfare.

In making this estimate, I assume that the graded road-bed, bridges, culverts, etc., are to be such as we find on our first-class roads; and that the track is to be thoroughly constructed, with rails of sixty pounds per lineal yard, put together with the most improved joint-ties, and completely ballasted with gravel or broken stone.

APPROXIMATE ESTIMATE.

No. of Div.	DESCRIPTION OF DIVISION.	Length, Miles.	Estimated Cost.
1.	Lake Superior to Yellowstone River, . . .	550	\$13,750,000
2.	Along the Yellowstone to Bozeman's Pass, .	420	11,760,000
3.	Bozeman's Pass to Hellgate River, Mountain Division,	225	9,000,000
4.	Hellgate River to Pend d'Oreille Lake, . .	205	7,000,000
5.	Pend d'Oreille Lake to the mouth of Lewis River,	223	7,500,000
6.	Mouth of Lewis River to Puget Sound— Columbia Valley Division,	377	11,310,000
			<hr/> \$60,320,000
Add for sidings and additional track,			4,200,000
Contingencies, including superintendence and engineering, 10 per cent.,			5,000,000
Telegraph line and instruments, complete, \$300 per mile, .			600,000
			<hr/> \$70,120,000
BUILDINGS.		ESTIMATED COST.	
134	Wood and water stations, @	\$3,500	\$469,000
20	Engine-houses and turn-tables, @	15,000	300,000
5	Principal engine repair-shops, @	100,000	500,000
2	Principal car repair-shops, @	75,000	150,000
5	Principal car repair-shops, @	40,000	200,000
200	Section, tool, and hand-car houses, @	500	100,000
134	Freight and passenger stations, @	2,000	268,000
150	Freight platform stations, @	500	75,000
10	Principal freight and passenger depots, . . . @	25,000	250,000
			<hr/> \$2,312,000
ROLLING STOCK, ETC.			
120	Locomotive engines, freight and passenger, . . @	\$13,000	\$1,560,000
100	Passenger cars, first class, @	4,000	400,000
50	Passenger cars, second class, @	2,500	125,000
30	Smoker's cars, @	3,000	90,000
30	Baggage, mail and express cars, @	2,000	60,000
1500	Box, freight, cattle, and platform cars, . . . @	800	1,200,000
40	Caboose and wrecking cars, @	1,200	48,000
20	Tool cars, @	800	16,000
80	Hand cars, @	200	16,000
Tools, snow-ploughs, etc. (per 100 miles), . . . @		1,000	100,000
			<hr/> \$3,615,000

In addition to the foregoing, there are various outlays, which will necessarily attach to the work during its progress, not covered in the items given, or included under the usual percentage allowed for contingencies, especially at the principal

terminal points on Lake Superior and Puget Sound, and on the Columbia River, and likewise at the crossings of the Mississippi, the Red River, the Dakota River, and the Missouri River, to connect the Railroad business conveniently with the transportation to and from these respective streams.

Also, on the route on which this estimate is predicated there would be a branch line, a few miles in length, extending to Portland, Oregon. In case the line should be along the Columbia River at Fort Vancouver, it would be only about five miles across to Portland, but involving two costly bridges, one over the Columbia, the other over the Willamette River.

In order to cover the cost of such a branch, and the cost of the necessary extra works above mentioned, it will be proper to add to the general estimate the sum of \$1,200,000 for the branch, and \$800,000 for the extra works referred to—making two millions in all. Nothing has been inserted for “right of way,” as the land-grant carries with it all that is needed over nearly every foot of the line; and where land is taken up, the owners will gladly give the Company all they may require, in consideration of the benefit to the remainder.

RECAPITULATION.

Grading, masonry, bridging, track and ballast,	\$60,320,000
Sidings, etc.,	4,200,000
Contingencies, including superintendence and engineering,	5,000,000
Telegraph line,	600,000
Buildings,	2,312,000
Rolling stock,	3,615,000
Branch road,	1,200,000
Extra works, etc.,	800,000
	<hr/>
	\$78,047,000
Interest on bonds over receipts during construction,	7,230,000
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Total,	\$85,277,000

This gives an average of \$42,638 per mile.

GRADES—DISTANCES—SNOW.

Mr. Roberts illustrates the favorable gradients of the Northern Pacific Railroad route, by comparing them with those of the Union and Central Pacific line, the obvious inference being that, as the latter route has already been proved a practicable one for a profitable thoroughfare, the former must be pre-eminently so. On this question of grades, the Report says:

An examination of the profile of the Union Pacific and Central Pacific lines between Omaha and Sacramento, a distance of 1775 miles, shows that there are four main summits; Sherman summit, on the Black hills, about 550 miles from Omaha,

8235 feet above the sea; one on the Rocky Mountains, at Aspen summit, about 935 miles from Omaha, 7463 feet; one at Humboldt mountain, about 1245 miles from Omaha, 6076; and another on the Sierra Nevada (only 105 miles from the western terminus at Sacramento), 7062; whilst from a point west of Cheyenne to Wasatch, a continuous length of 450 miles, every portion of the road is more than 6000 feet above the sea; being about 1000 feet, on this long distance, higher than the *highest summit* on the Northern Pacific Railroad route, whilst for the corresponding distance on the Northern Pacific route the average elevation is under 3000 feet, or 3000 feet less than on the Union and Central line. The highest summit on the Northern Pacific line is about *three thousand feet* lower than the Sherman summit on the Union Pacific line.

On the Union Pacific Road the profile also shows that for nine hundred continuous miles, from Sidney westward, the road has an average height of over 5000 feet, and the lowest spot on that distance is more than 4000 feet above the sea; whereas, on the Northern route only about sixty miles, at most, are as high as 4000 feet; and the corresponding distance of nine hundred miles, extending from the mouth of the Yellowstone to the valley of Clarke's river, is, on an average, about 3000 lower than the Union Pacific line. Then, allowing that 1000 feet of elevation causes a decrease of temperature of three degrees, there is a substantial reason for the circumstance, now well authenticated, that the snows on the Northern route are much less troublesome than they are on the Union Pacific and Central Pacific route. At the same time it should not be claimed that there will be no trouble from snow on the Northern line. * * * * The impression I would wish to create is this: That a line can be so located between the valley of the Missouri and the mouth of the Columbia river, and to Puget Sound, that for the greater portion of the distance it will not encounter any serious trouble from snow; and that in the passage of the Belt range, between the Yellowstone and the upper Missouri, and the crossing of the Rocky mountains at Deer Lodge Pass, no greater obstacles from snow are likely to be met with than have already been encountered and overcome on roads in the New England States and in the State of New York. It is the general impression in the States, an impression entirely natural, that the farther we go to the north the deeper the snow; but on this line the modifying and controlling influences of the mild climate which pervades the Pacific slope and the interior along this latitude, combined with the greatly reduced elevation of the range of country to be occupied, and the low summits of the back-bone mountains to be passed, tend to confirm the favorable statements of intelligent gentlemen who have long been familiar with the regions in question.

The grades on the route across through the State of Minnesota and Territory of Dakota to the Missouri river will not be materially dissimilar to those on the other finished railroads south of it, passing from Chicago to Sioux City, Council Bluffs, etc., namely, undulating within the general limit of about forty feet per mile, although it may be deemed advisable, at a few points, for short distances, to run to a maximum of one foot per hundred, or fifty-three per mile. There is sufficient knowledge of this portion of the route to warrant this assumption. And beyond the Missouri, along the valley of the Yellowstone, to near the Bozeman pass, there is no known reason for

assuming any higher limits. In passing Bozeman summit of the Belt range, and in going up the eastern side of the Rocky Mountains, it may be found advisable to adopt a somewhat higher gradient, for a few miles, in overcoming those summits.

The highest ground encountered between Lake Superior and the Missouri river, at the mouth of the Yellowstone, is only 2300 feet above the sea, the low summit of the Rocky Mountains is but little over 5000 feet, and the Bozeman pass, through the Belt range, is assumed to be about 500 feet lower. The height of the country upon which the line is traced, and upon which my estimate of cost is based, may be approximately stated thus, beginning at Lake Superior, going westward :—

	Miles.	Average height above the Sea.
To Dakota valley,	300	1200 feet.
Yellowstone river,	300	2200 "
Along Yellowstone,	400	2600 "
Flathead valley,	300	3500 "
Lewis or Snake river,	200	3000 "
Puget Sound,	500	400 "
Lake Superior to Puget Sound <i>via</i> Portland,	2000	
[Direct line,]	1775]	

Compare this with the profiles of the finished line of the Union and Central Pacific Roads. Properly, the comparison should be made from Chicago—the eastern terminus on Lake Michigan, of the Omaha line. There are on that route, approximately, as follows :—

From Chicago.	Miles.	Average height above the Sea.
To Omaha,	500	1000 feet.
Near Cheyenne,	516	3300 "
Cooper's,	87	7300 "
Promontory Point,	482	6200 "
Humboldt,	406	4750 "
Reno,	130	4000 "
Auburn,	45	4400 "
Sacramento,	39	300 "
San Francisco,	135	50 "
Chicago to San Francisco,	2410	

On the Northern Pacific line there need be but two principal summits, whilst on the other there are four; the lowest of which is about a thousand feet higher than the highest on the northern route. If, therefore, the roads were the same length between the Pacific waters and the great lakes and navigable rivers east of the Rocky Mountains, the advantage would be largely in favor of the northern route; but this actual distance is 410 miles less, and the equated distance for ascents and descents in its favor will be very considerable in addition.

Mr. Roberts closes his very discriminating and guarded Report with these words—words which carry far more weight than would expressions of unstinted eulogy of the route examined :

This special report contains, in brief, the substance of the information obtained during an exploration which occupied the entire months of June, July and August ; involving in all over nine thousand miles of travelling, on railroads, in coaches, steamers, wagons, canoes, and on horseback ; during which, owing to the remarkable facilities afforded through the aid of the modern conveyances by steam, both on land and water, our party was enabled to explore an extent of territory which in the time of Lewis and Clarke occupied nearly two years.

In conclusion, I would state as the result of these explorations and investigations, after much reflection, and fully appreciating the responsibility devolved upon me as the Engineer selected by you for the duty, that the Northern Pacific Railroad route, with the land grant secured to the Company by the Government, possesses great intrinsic value, and will be, as a whole, a remarkably favorable line in all important respects ; a line which, if judiciously located, honestly constructed, and properly administered, will pay within a few years a fair dividend on its cost. I had apprehensions that personal investigations might disclose material or possibly vital errors in some of the anticipations induced by former Reports. The result, however, has been in the other direction ; and I am constrained by the facts to present an estimate of cost essentially lower than those previously submitted by the able Chief Engineer, and I offer it confidently as reasonable and reliable.

SOME DISCONNECTED FACTS.

—THE Northern Pacific Railroad has received from the United States Government a four-fold greater subsidy than was conferred upon the Union and Central Pacific Roads, since the land grant of the former is twice as large as those of the latter, and more than twice as valuable intrinsically per acre. The Government bonds loaned the Union and Central Roads are a debt, to be repaid, principal and interest; hence they are neither subsidy nor assets. If the Union and Central Pacific are solvent and successful with the bonus they actually received from Government, (and they certainly are so,) will the Northern Pacific prove solvent and successful with an equal business and with a bonus four times as valuable?

—The international character of the Northern Pacific Railroad will give it much strength and increased importance. It will be the natural and only thoroughfare and outlet for the population and products of the British Possessions west of Lake Superior, and will assuredly command the carrying trade of these provinces. The continuation of the Northern Pacific Road along the southern shore of Lake Superior to the Sault Ste. Marie, thence connecting with a new Canadian railway to Toronto and Montreal, thus forming an international all-rail line from Ocean to Ocean, is among the probabilities of the early future. An important arm of the Northern Pacific Road is already under construction to the British border, at Pembina on the Red River. This will soon be met by a road built southward from Fort Garry, and thus will railroad facilities be carried to the very heart of these vast and fertile provinces, heretofore almost inaccessible. Farther west, other branch lines will be built northward into the British Possessions from the main trunk of the Northern Pacific Railroad, thus accommodating the entire area north of the forty-fifth parallel.

—In 1870, Eighteen Million pounds of freight entered Montana by way of Corinne station, Utah, being hauled in wagons 400 miles across a rugged country at a cost of *fifteen cents per pound*. This is some intimation of what a railroad will do for Montana, and Montana for a railroad.

—Two-thirds of the forty millions of people who now occupy the United States, are nearer by the Northern Pacific Railroad line to the mouth of the Columbia River and to Puget Sound than to any other part of the Pacific coast. The Northern Pacific will be the only trans-continental road under one control, offering to trade and travel a direct and uniform communication from ocean to ocean, free from interruptions and exactions arising from separate or hostile interests.

PUGET SOUND.

THE capacity and character of the harbors of Puget Sound, at the western terminus of the Northern Pacific Railroad, together with the climate and the agricultural, mineral, marine and timber resources of the North Pacific Coast, have obviously an important bearing on the future of the Road, and the country traversed by it. If the power of choice were given, it would be difficult to say what element could be added to the situation at the western end of the great thoroughfare, which would materially add to the advantages already given by nature.

Harbors.—Puget Sound itself is an inland sea, fringed with harbors of abundant, and sometimes superabundant, depth, and of sufficient capacity to shelter the commerce of two oceans. This system of land-locked bays is dotted with islands and joined to the Pacific by a gateway called the Strait of Fuca, eighty miles in length, ten to twelve in width, and from twenty to one hundred fathoms deep in all its parts. One arm of the Sound extends northward from where it joins the Strait, and the other southward; both divide and ramify, until the Sound, with all its bays and deep-water inlets, presents a shore-line of 1833 miles, and extends across two degrees of latitude. There is no obstruction at the entrance to this singular succession of harbors. The mouth of the Strait is easily entered in all weather—indeed, as a refuge for shipping, the waters of Puget Sound are simply unsurpassed. This mammoth haven is not only capacious beyond all possible commercial needs of the future, but it is safe in all its parts for the largest class of vessels. For one hundred and fifty miles the mid-channel is more than three hundred feet deep, and remarkably free from hidden dangers. On either side of the main channel, and in the various bays which will be the real harbors and shipping ports, the water is still deep, but not too deep for anchorage. The holding-ground is excellent. Commodore Wilkes, of the Navy, after exploring Puget Sound, said in his report :

Nothing can exceed the beauty of these waters and their safety. Not a shoal exists within the Straits of San Juan de Fuca, Admiralty Inlet, Puget Sound, or Hood's Canal, that can in any way interrupt their navigation by a seventy-four gun ship. I venture nothing in saying that there is no country in the world possessing waters equal to these.

The basin containing the Sound and its branches is bounded on the east by the Cascade range of mountains, and sheltered on the west by the Olympian or Coast range. This depression between the two mountain ridges is about seventy-five miles in width, and that part which is not occupied by the waters of the Sound, is mainly covered with magnificent forests which extend to the very summit of the mountains. Here grows that Puget Sound timber of which so much has been written. These forests of giant fir and cedar are traversed by ten rivers, which flow down from the Cascade mountains and empty into the Sound, furnishing ten alluvial valleys of agricultural land, and supplying for logging purposes another thousand miles of inland shore line.

At this writing, it has not been decided which one of the many excellent harbors on Puget Sound shall be made the ocean terminus of the Northern Pacific Railroad and the site for the city which is to be the metropolis of the North Pacific coast.

Timber of Puget Sound.—The timber of Washington Territory has carried its own fame to all parts of the world. A gentleman who recently made the round-the-globe tour says that in examining a railway in India, he asked where the ties came from. The answer was, "Puget Sound." At Alexandria, in Egypt, while admiring some singularly perfect spars among the shipping, he asked where they grew, and was told, "Puget Sound." Afterward, in a seaport of China, he asked the source of certain timbers that a friend was using in the construction of wharves. The monotonous reply was, "Puget Sound."

Hon. S. Garfield, Congressional Delegate from Washington Territory, speaking of the timber, says:

Washington Territory, west of the Cascade Mountains, covers an area of about 20,000 square miles (exclusive of interior waters), three-fourths of which are timbered lands. The timber consists of fir, cedar, pine, spruce, hemlock, oak, maple, cottonwood, ash, dog-wood, alder, and some of the smaller varieties. The amount of the fir exceeds all the other varieties combined, and the cedar stands second in quantity. As the fir exceeds all other varieties in quantity, so also it does in utility, being valuable for ship-building, house-building, fencing, spars, and indeed almost every purpose for which wood is used. It is stronger than white oak.

Mr. Garfield further says:

The size of the fir trees, and the number growing upon given acres, in good timber districts, is almost incredible to residents upon the Atlantic slope of the conti-

ment. Trees often measure 320 feet in length, as I have several times demonstrated, more than two-thirds of which are free from limbs. Fifty, sixty, and sometimes as high as eighty good timber trees grow upon an acre of ground. In the summer of 1868, I had two parties out cruising for timber. The leaders of these parties were old and experienced lumbermen. One of these parties found a "berth" of timber, covering about 3,000 acres, which was so very fine that they took extra pains to ascertain the facts in regard to it in order to satisfy me of the truth of their report. They examined the forest carefully, and selecting an average tree, cut it down. That tree measured 42 inches in diameter at the stump, and at the first limb, 200 feet above, it measured 22 inches, the top or branching portion measuring 70 feet more. It was then ascertained by measurement and count that there was an average of 80 such trees to the acre throughout this berth. I do not give this statement as an illustration of the *size* of our trees, for these were by no means large ones. They were of the size, however, most convenient for milling purposes, and their great length, free from limbs, and their number per acre, make the average production very much more than is usually obtained. Our loggers work no "berth" of (fir) timber producing less than 30,000 feet per acre—from sixty to one hundred and twenty thousand feet being the more common yield. The Puget Sound lumber, which is now exported to the extent of about one hundred and eighty million feet annually, besides piles and spars, finds a market at San Francisco, Callao, Valparaiso, the Sandwich Islands, Australia, and China.

Of the lumber trade now existing, and to be developed along the western portions of the Northern Pacific Railroad, a high authority says:

Over hundreds and hundreds of square miles of area does this unequalled timber exist, astonishing for its size, perfection, and durability. For hundreds of miles lineally the Northern Pacific Railroad's main line and branch will run through it and near it. Nowhere else in the world does the material exist for such a trade in lumber outward by sea or inward by rail, as will be witnessed at the gateway of Puget Sound and on the western end of this Railroad. That trade seaward was enormous in 1869. Fourteen huge saw-mills on Puget Sound alone supplied it. Some of these mills cut 150,000 feet a day. They are run night and day. To one of them is attached, as its machinery of foreign transportation, 17 ships. It gives constant employment to 1000 men. It holds the fee-simple of over 100,000 acres of most carefully-selected timber land. The entire product of the mills of Puget Sound, in 1870, was over 190,000,000 feet.

Forests yielding 100,000 feet and upward are common all around Puget Sound. The wood of the firs and cedars, unequalled for lightness, straightness of cleavage, and resistance of moisture, stronger than oak, and more retentive of spikes and tree-nails, will supplant all other material for ship-building on both shores of the Pacific Ocean. Last year Puget Sound exported above one hundred and seventy million feet of lumber, twenty millions of lath and shingles, and an immense amount of masts, spars, and piles. This product of the as yet scarcely scarred forests of Washington Territory was sold in California, South America, Australia, Japan, China, the East Indies, and Europe. It furnished cargoes to 113 ships, 491 barks, 45 brigs, and 87 schooners.

Climate of Puget Sound.—The climate of Oregon and Washington Territory is a perpetual surprise to the tourist, and difficult to be understood by dwellers in the Atlantic States. Chief Engineer Roberts, from whose very candid report we elsewhere quote, says of Puget Sound winters:

The climate of this favored region is very remarkable, and will always remain an attractive feature. Even in the coldest winters there is, practically, no obstruction to navigation from ice; vessels can enter and depart at all times; and the winters are so mild that summer flowers, which, in the latitude of Philadelphia on the Atlantic Coast, we are obliged to place in the hot-house, are left out in the open garden without being injured.

Official observations, covering a period of six years, show the average temperature on Puget Sound to be as follows: Winter, 40°; Spring, 48°; Summer, 62°; and Autumn, 51°; for the year, 51°. The difference in mean temperature, between summer and winter, it will be noticed, is only 22°.

The average rain-fall during the same period was 53 inches, distributed as follows: Spring, 11.19; Summer, 3.85; Autumn, 15.85; Winter, 22.62.

The seasons would more properly be classified as two, summer and winter, each running insensibly into the other, and each with its pleasant and its rainy weather. The grass is green nearly the whole year. A gentleman from that region (Mr. E. Meeker, of Olympia), brings us fifty-three varieties of flowers plucked by him in the open air, in latitude 47°, on the 4th of December, 1870. On the 10th of January, 1870, twenty-two varieties were still in bloom out of doors. Such is the climate at the western extremity of the Northern Pacific Railroad. The causes of this singular modification of temperature have been discussed in another portion of this pamphlet. They are, in brief, the warm south and west winds which there prevail in winter, added to the effect of the Japanese current, which does for our North Pacific coast what the Atlantic Gulf Stream does for the climate of Northern Europe.

Soil and Productions.—In connection with the remarkable climate the productive capacity of the soil of the Puget Sound region is great both as to quantity and quality. The quality and yield of wheat on the Pacific slope are well known to be good, and in this regard Puget Sound is no exception to the rule. All the other cereals are grown to perfection; oats are particularly plump and heavy. Indian corn has

been ripened thirteen years in succession in one locality, and as many as forty bushels to the acre have been raised, but the yield of this is not so good here as in a region where the nights are warm and sultry. The small grains are at home in Washington Territory. Pork is usually fattened upon peas, wheat, and barley, and, it is claimed, can be made as cheaply as upon corn in the Western States.

Fruits of all kinds, except the peach and the grape, are raised in great profusion, and are remarkable for size and flavor. Although California fruit is justly in good reputation, Oregon and Washington apples are exported to San Francisco, where they bring an advanced price on account of their excellence. The potatoes and other vegetables grown on the north coast are also in high favor in the San Francisco market.

This is emphatically the dairyman's region. Pure, soft water abounds almost everywhere, grass grows early in spring and late in autumn, and the root crops produce immense returns. Western Washington will rival England in its turnip yield. With access to the world's markets, the dairy interest of this section will become a great and profitable branch of industry and of trade.

The Fish of Puget Sound.—The fisheries of Puget Sound, although yet in the infancy of their development, already constitute a leading interest. In the early future they are certain to assume an importance little dreamed of by those who are unfamiliar with the facts regarding them. The variety and abundance of fish of the highest excellence in Puget Sound and vicinity are as striking a characteristic of this region as are the timber and climate. The cod banks of Alaska are now known to be as extensive and productive as those of our Atlantic Coast. These fisheries are necessarily tributary to the trade of Puget Sound. The summer climate of Alaska is too moist for curing fish, while that of San Francisco is too hot and dry. The climate of Washington offers just the required medium. Besides, the fisheries are 800 miles nearer the drying racks and the shipping ports of Puget Sound than to those of San Francisco. These advantages will govern the location of the fishing trade.

The best whaling-ground now left to the American harpooners is within 18 days of the western terminus of the Northern Pacific Railroad. After the completion of this line, the headquarters of the American whaling interest will unquestionably be at Puget Sound; and, although that business is not so important now, as formerly, yet,

with its attendant ship-building, outfitting, refitting, discharging, and the shipment of its product eastward by rail, it will contribute not a little to the business of Puget Sound and the Road.

Ship-Building.—There are no less than seven varieties of timber enumerated by the San Francisco board of underwriters as suitable for ship-building, which are to be found in abundance on Puget Sound. Pitch, rosin and turpentine of a superior quality have been produced in, and exported from, this locality. Coal and Iron are both at hand in abundance. The facilities for obtaining spars and ships' knees on the spot are perfect. All these advantages added to the extensive shore line of the Sound suitable for ship yards, the cheapness of labor, food and lumber, point to Puget Sound as the great ship-building centre of the Pacific Coast. This industry had already reached very considerable proportions before the present universal decline of American shipping interests began; and careful estimates made by practical ship-builders and confirmed by experience, show beyond question that vessels can be built and equipped considerably—probably 20 per cent.—cheaper on Puget Sound than anywhere else in the United States.

CHARTER AND MORTGAGE.

SYNOPSIS OF THE CHARTER.

The leading provisions of the Charter of the Northern Pacific Railroad, as amended to the present date (February, 1871), are as follows:

I. The Northern Pacific Railroad Company is authorized to construct, operate, and own a continuous Railroad and Telegraph line, "beginning at a point on Lake Superior, in the State of Minnesota or Wisconsin; thence westerly by the most eligible railway route, as shall be determined by the Company, within the territory of the United States, on a line north of the forty-fifth degree of latitude, to some point on Puget Sound," *via* the valley of the Columbia River, with a branch "from some convenient point on its main trunk line," across the Cascade Mountains to Puget Sound.

II. In aid of the work, the charter grants to the Company 20 alternate sections, or 12,800 acres, of public land, to each mile of finished track, through the States traversed, and 40 alternate sections, or 25,600 acres, per mile through the Territories. This grant of land applies to the chartered branch of the Northern Pacific Road as well as to the trunk line. The charter also grants right of way, 400 feet in width, for both main line and branch, through the public domain, and the privilege of taking, free of cost, from the Government lands adjacent to the Road, all necessary construction material. Iron and coal lands are expressly embraced within the terms of the grant.

III. As often as 25 consecutive miles of the Road are completed, "in a good, substantial, workmanlike manner," such finished portion is to be examined and approved by three Commissioners, appointed by the President, and thereupon patents are to be issued transferring and confirming to the Railroad Company the lands of the grant corresponding to, and conterminous with, such completed section. By the operation of the Charter and the General Mortgage, such Government patents vest a perfect title to the lands of the Grant in the Trustees of the Mortgage, who represent the holders of the bonds now being negotiated. The Road is to be in all regards first class; the rails are to be made from American iron and American ore; and the Company is prohibited from charging the United States higher rates for transportation than are charged to individuals.

IV. The Government is to cause to be surveyed the lands for forty miles in width on both sides of the line of the Road, as fast as this shall be rendered necessary by the construction of the track. On the Company's filing a map of its intended route through any State or Territory, the lands embraced in the Grant are to be withdrawn from market, and thereafter will not be liable to sale, entry, or pre-emption, *whether surveyed or unsurveyed*; and the alternate sections belonging to the Government cannot be sold at less than \$2.50 per acre. The usual authority is given the Company to appropriate a right of way through private lands by compensating owners therefor.

V. The charter provides that at least 25 miles of that portion of the Road between Portland (Oregon) and Puget Sound shall be completed by January 1, 1872, and at least 40 miles each year thereafter until the entire Road, from Lake Superior to Puget Sound, shall be completed.

IV. The charter (as amended by Act of Congress approved May 31st, 1870) expressly authorizes and empowers the Northern Pacific Railroad Company to issue its bonds to aid in the construction and equipment of its Road, and to secure such bonds by mortgage on its property of all kinds and descriptions, real, personal, and mixed, including its franchise as a corporation. It is also provided that, as proof and notice of its legal execution and effectual delivery, said Mortgage shall be filed and recorded in the office of the Secretary of the Interior. [*Note.* The Mortgage has been thus filed and recorded.] The matter of the title to Indian lands, if any, embraced within the Grant, is to be adjusted by the Government in a manner satisfactory to the Indians; and in all stages of its progress, the policy of the Northern Pacific Railroad Corporation will be one of entire friendliness to the natives of the plains.

SYNOPSIS OF THE GENERAL MORTGAGE.

The General Mortgage authorized by the charter, and executed by the Northern Pacific Railroad Company for the security of the holders of its First Mortgage Bonds, is dated July 1, 1870. It is drawn with the utmost care, and every provision has been embraced in it which could add to the security of the bondholder.

I. It conveys to two trustees, Messrs. Jay Cooke and J. Edgar Thomson, all the property and rights of property of the Northern Pacific Railroad Company, including:

1. The Road-bed and track, as fast as constructed, of the trunk line and all authorized branches.

2. All rolling stock and other equipments; all engine-houses, machine-shops, depots, water stations, and other buildings.

3. The entire Land Grant of the Road, as fast as it accrues to the Company, embracing between Fifty and Sixty Million acres.

4. All rights, franchises, privileges, and other property now owned or hereafter to be acquired by the Northern Pacific Railroad Company.

II. The Mortgage provides that all the property named above, and all moneys arising from the sale of the same, shall be held by the Trustees as security, and pledged to the payment of the Company's First Mortgage Bonds, principal and interest, as they shall become due, and shall be promptly applied to that purpose by the Trustees, in case of any default by the Railroad Company.

III. The Railroad Company shall have the right at all times to contract for the sale of portions of the lands of the Grant, at prices to be approved by the Trustees (but at not less than \$2.50 per acre); and THE PROCEEDS OF ALL SALES OF LANDS, WHETHER IN CASH, BONDS, OR OTHER SECURITIES, SHALL BE DEPOSITED WITH THE TRUSTEES, and upon the payment to the Trustees of the proceeds of such sale or sales, the Trustees shall and will make a full and clear deed to the purchaser of the lands thus paid for. Such deed from the Trustees releases the land thus sold from the operations of the General Mortgage. The First Mortgage Bonds of the Company are made receivable at par and accrued interest in payment for the Company's lands at their lowest cash price. By a subsequent arrangement between the Trustees and the Railroad Company, the bonds are made always receivable for lands at *ten per cent. premium*, or 1.10.

IV. The Trustees, who directly represent the bondholders, are required by the terms of the Mortgage to see that the proceeds of all sales of First Mortgage Bonds are devoted to the construction and equipment of the Road and that the proceeds of land sales are used in purchasing and cancelling the bonds of the Company, if they can be bought before maturity at not more than 10 per cent. premium; otherwise the Trustees are to invest the proceeds of land sales in United States Bonds or Real Estate Mortgages for the further security of Northern Pacific bondholders. At all times, until the entire bonded debt of the Railroad Company is paid off and cancelled, the Trustees are required to see that they have in their control, as security, at least 500 acres of average land to every \$1000 of outstanding First Mortgage Bonds, besides the Railroad itself and all its equipments and franchises.

During the construction of the Road, the interest on the bonds secured by this Mortgage is to be paid from the earnings of the finished portions of the Road, and from the general fund of the Company. No portion of the proceeds of land sales is to be devoted to the payment of interest, unless the general treasury of the Company shall be first exhausted, in which case the Company shall, from the first net earnings of the Road, make good the amount thus taken from the land fund.

In case of the resignation or death of either of the Trustees, the surviving Trustee is empowered to appoint a successor; or, upon the request of the bondholders, the appointment may be made by the courts in the usual manner.

CLIMATE AND RESOURCES OF MONTANA.

LETTER FROM GOVERNOR POTTS.

The route of the Northern Pacific Railroad traverses the entire length of Montana. Ten Million acres of its land grant lie within that Territory, and mainly in the valley of the Yellowstone. In reply to inquiries made by his former neighbors and friends in Ohio, Governor Potts of Montana wrote the following private letter addressed to Dr. J. Armstrong of Alliance. Such incidental and unsolicited testimony from so high a source is of the most conclusive sort:

EXECUTIVE DEPARTMENT, MONTANA TERRITORY,

Virginia City, February 17, 1871.

SIR:—I have the honor to acknowledge the receipt of your letter of the 6th inst., inquiring about the character and climate of Montana, through which the Northern Pacific Railroad will run. * * * *

The Yellowstone valley [along nearly the entire length of which the Northern Pacific Railroad will pass] is about 400 miles long by 150 miles wide. It contains eight principal valleys, entering the great parent valley of the Yellowstone, situated midway between the mountains and prairies. Its climate is soft and genial. Its soil is exceedingly fertile, and contains extensive coal fields and numbers of oil springs. The Yellowstone is navigable for light draft boats for 300 miles from its mouth. I am satisfied that this valley is one of the most healthy and productive on this continent, and will furnish homes for at least a million of people.

The valleys of the Gallatin, Deer Lodge, Jefferson, Bitter Root, and Jocko are equally as productive as the Yellowstone. The average yield of wheat in these valleys is from fifty to sixty bushels per acre, and all other cereals in proportion.

I have never seen any place that equals this Territory for the production of vegetables. The common yield of potatoes per acre is 400 bushels. The most valuable land in Montana for agriculture is yet unoccupied. That now under cultivation is generally close to some mining camp, and was taken up and occupied solely because it was near a settlement.

Gold and silver mining is very profitable in this Territory. More than Twelve Million of dollars gold dust was mined here during the past season, and the coming year promises to be the most profitable mining season ever known in the history of Montana. Labor here is very scarce, and consequently very high. Common day laborers readily command from \$5 to \$6 a day, and mechanics from \$6 to \$10 per day.

From the best information that I can obtain the Northern Pacific Railroad will open up the richest country in agricultural and mineral resources on the American continent, and if the people East and in Europe could see the rich land grant that the road has its bonds would not remain in the market ninety days. The coming year is certainly a propitious time to settle in Montana, and I shall take great pleasure in welcoming a soldier colony from old Molly Stark.

I almost forgot to speak of the climate. This winter is said to be colder than usual, but I can assure you that it is not so cold or disagreeable as Ohio winters. The atmosphere is dry and pure, making this mountain country the healthiest on the continent. On the high mountains snow falls to a greater depth, but the *valleys are scarcely ever covered with snow*. The cattle run at large during the entire year, and no grain or hay is fed them, yet they come out in the spring as fat as the best stalled cattle in Ohio. Our meat market here is supplied with beef driven in from the herd, and I can assure you the meat is better than I ever saw in Ohio.

In my haste I may have omitted to state many things you and your friends may want to know. If so, I shall be glad to answer any questions you propound.

Very truly yours,

B. F. POTTS.

NEW 7-30 GOLD LOAN

OF

THE NORTHERN PACIFIC RAILROAD COMPANY

SECURED BY FIRST MORTGAGE ON

RAILROAD AND LAND GRANT.

We are now selling at par and accrued interest the First Mortgage Land Grant Gold Bonds of the Northern Pacific Railroad Company. They are free from United States Tax, and are issued of the following denominations: Coupons, \$100, \$500, and \$1,000; Registered, \$100, \$500, \$1,000, \$5,000, and \$10,000.

With the same entire confidence with which we commended Government bonds to Capitalists and People, we now, after the fullest investigation, recommend these Northern Pacific Railroad bonds to our friends and the general public.

GOLD PAYMENT.—Both principal and interest are payable in American gold coin, at the office of Jay Cooke & Co., New York City—the principal at the end of 30 years, and the interest at the rate of Seven and Three-tenths per cent. per annum; half-yearly, first of January and July.

PERFECT SAFETY.—These bonds are secured by a first and only mortgage on all the property and rights of the Northern Pacific Railroad Company, which will embrace on the completion of the work:

1. Over Two Thousand Miles of Road, with rolling stock, buildings, and all other equipments.
2. Over Twenty-Three Thousand Acres of Land to every mile of finished road. In other words, added to the usual security of a first mortgage on the Road and all its equipments, there are 500 Acres of land, lying along-side a great trunk railroad, to doubly secure every \$1000 bond issued.

While the Government does not directly guarantee the bonds of the Road, it thus amply provides for their full and prompt payment by an unreserved grant of land, the most valuable ever conferred upon a great national improvement.

PROFITABLENESS.—Northern Pacific Railroad Seven-Thirties pay the investor more than EIGHT PER CENT. currency, per annum. We believe no other first-class security now on the market yields so great an income.

Compared with Government Five Per Cents and Six Per Cents, the case stands thus:

	Gold Interest.	Gold Principal.
\$1100 currency, invested now in U. S. Five Per Cents, (at par in gold,) will yield in 10 years,	\$500	\$1000
\$1100 currency, invested now in U. S. Six Per Cents, (at par in gold,) will yield in 10 years,	600	1000
\$1100 currency, invested now in Northern Pacific 7-30's, (at par in currency,) will yield in 10 years,	803	1100

Here is a difference in *annual income* of nearly *one-third*, besides a difference of 7 to 10 per cent. in principal, when both classes of bonds are redeemed.

CONVERTING FIVE-TWENTIES.—In view of the Government's expectation soon to retire its six per cent. bonds by funding the debt at lower interest, many holders of Five-Twenties are converting them into Northern Pacific Seven-Thirties, thus realizing a handsome profit on the exchange, and greatly increasing their income.

RECEIVABLE FOR LANDS.—These bonds will be at all times, before maturity, receivable at 1.10, in payment for the Company's lands, at their lowest cash price.

BONDS EXCHANGEABLE.—The registered bonds can be exchanged at any time for coupons, the coupons for registered, and both these can be exchanged for others, payable, principal and interest, at any of the chief financial centres of Europe, in the coin of the various European countries.

AGENCIES for the sale of the Seven-Thirties are established in nearly every city and important town throughout the United States and Canada.

Persons living remote from banks can address the undersigned directly. Further information, pamphlets, maps, &c., will be furnished on application, by any of the Banks or Bankers acting as Agents for this loan.

For sale by **JAY COOKE & CO.**

Fiscal Agents Northern Pacific Railroad Company,
Philadelphia, New York and Washington.

By National Banks, and by Brokers generally throughout the country.

About the noblest work that man can do is the development of this magnificent continent of yours."—THOMAS HUGHES, M. P.

The New Northwest:

AN

ADDRESS

BY

ION. WM. D. KELLEY

[Reported by D. WOLFE BROWN, Phonographer.]

ON THE

NORTHERN PACIFIC RAILWAY,

ITS RELATIONS TO THE DEVELOPMENT OF THE NORTHWESTERN SECTION OF THE
UNITED STATES, AND TO THE INDUSTRIAL AND COMMERCIAL
INTERESTS OF THE NATION.

Correspondence.

Philadelphia, May 27th, 1871.

HON. WILLIAM D. KELLEY:

DEAR SIR:—Recognizing your position as a representative American, with an intelligent interest in the material progress of the country, we respectfully ask you to address the Commercial Exchange and the citizens of Philadelphia, at your earliest convenience, on the development of the Northwest section of the Continent by the building of the Northern Pacific Railroad, and the effect of this enterprise upon the trade, manufactures and commerce of our State and city.

Very respectfully, your obedient servants,

S. I. COMLY,
President Commercial Exchange.

MORTON MCMICHAEL,
M. BAIRD & CO.,
E. HARPER JEFFRIES,
GEORGE L. BUZBY,
S. J. CHRISTIAN,
SAMUEL M. FELTON,
President Pennsylvania Steel Co.

WASHINGTON J. JACKSON,
P. A. KELLER,
HERMAN J. LOMBAERT,
President American Steamship Co.

J. W. JONES,
Sec. Philadelphia and Reading Railroad.

THOMAS A. SCOTT,
Pres. Pa. Co. and P. C. and S. L. R. R.

J. G. FELL,
A. R. MCHENRY,
LEWIS AUDENREID,
EDWIN N. BENSON,
JOHN P. WETHERILL,
A. WHITNEY & SONS,
C. H. CLARK,
JAMES L. CLAGHORN,
G. M. TROUTMAN,
ASA PACKER,
President Lehigh Valley Railroad.

E. A. ROLLINS,
N. B. BROWNE,
THOMAS ROBINS,
JOHN JORDAN, JR.,
HENRY H. BINGHAM,
ALEX. G. CATTELL & CO.,
DELL NOBLIT, JR.,
LOGAN BROS. & CO.,
FREDERICK FRALEY,

J. EDGAR THOMSON,
President Pennsylvania Railroad.

THOMAS SMITH,
HENRY D. WELSH,
HENRY LEWIS,
DANIEL SMITH, JR.,
WILLIAM G. CROWELL,
J. W. FORNEY,
WILLIAM C. LONGSTRETH,
COFFIN COLKET,
CHARLES PLATT,
ISAAC HINCKLEY,
President P. W. and B. Railroad.

W. W. HARDING,
GEORGE H. STUART,
A. P. COLESBERRY,
D. FAUST,
JOEL J. BAILY & CO.,
JOHN O. JAMES,
CHARLES SANTEE,
SAMUEL H. SHIPLEY,
THOMAS C. HAND,
D. B. CUMMINS,
ARTHUR G. COFFIN,
HENRY D. SHERRERD,
J. P. AERTSEN,

Treas. H. and B. T. M. R. R. and Coal Co.
M. P. HUTCHINSON,
President Outawissa Railroad.

W. L. GILROY,
Treasurer Outawissa Railroad.

F. A. COMLY,
President North Pennsylvania Railroad.

G. A. WOOD,
E. C. KNIGHT & CO.,
R. H. DOWNING,
President B. and S. R. R. C.

Philadelphia, June 5th, 1871.

GENTLEMEN:—Your invitation to address the citizens of Philadelphia on the development of the Northwestern section of the United States by the building of the Northern Pacific Railroad, and the effect of this enterprise upon the trade, manufactures and commerce of our State and city, invites me to continue in the advocacy of an enterprise for the promotion of which I have, as opportunity offered, labored for more than a quarter of a century.

I will find pleasure in complying with your request on the evening of Monday next, the 12th inst. With thanks for the flattering terms in which you were pleased to express your wishes, I am,

Very truly yours,

WILLIAM D. KELLEY.

To S. I. Comly, J. Edgar Thomson, Thomas A. Scott, John O. James, M. Baird & Co., George H. Stuart, and others.

The public meeting, which was called in pursuance of the above correspondence, assembled in the American Academy of Music, on the evening of Monday, June 12. A crowded audience of more than four thousand citizens of Philadelphia, and prominent gentlemen from other parts of Pennsylvania, attested the general interest felt in the subject to be discussed.

The meeting was called to order by Seth I. Comly, Esq., and the following officers were then elected:

President:

HIS EXCELLENCY JOHN W. GEARY,
GOVERNOR OF PENNSYLVANIA.

Vice-Presidents:

Hon. JOHN SWIFT,
Col. JAMES PAGE,
WM. M. MEREDITH,
J. O. JAMES,
A. J. LEWIS,
JOS. PRICE,
HENRY M. PHILLIPS,
JOHN FARNUM,
NATHAN BROOKE,
WASH. J. JACKSON,
GEORGE FALES,
JOHN SELLERS,
HENRY WINSOR,
MATTHEW BAIRD,
Gen. R. PATTERSON,
ALEXANDER BROWN,
Gen. W. McCANDLESS,
Gen. H. H. BINGHAM,
A. G. CATTELL,

ROBT. P. DECHERT,
A. J. DERBYSHIRE,
JAY COOKE,
S. BRADFORD,
RICHARD WRIGHT,
JOHN A. HOUSEMAN,
HENRY C. CAREY,
HENRY G. MORRIS,
J. RINALDO SANK,
JAMES McMANES,
C. A. GRISCOM,
CHARLES WHEELER,
J. H. MICHENER,
JAMES C. HAND,
ALEX. WHILLDIN,
SETH I. COMLY,
N. B. BROWNE,
WILLIAM MASSEY,
FURMAN SHEPPARD,

S. A. CROZER,
WM. B. BEMENT,
WM. GILLESPIE,
MORTON McMICHAEL,
ALFRED DAY,
WILLIAM ELLIOTT,
CALEB COPE,
GEORGE A. WOOD,
WM. V. McGRATH,
MORRIS DAVIS,
JAMES POLLOCK,
SAML. J. REEVES,
SAML. E. STOKES,
E. Y. TOWNSEND,
JACOB RIEGEL,
THOS. E. HAND,
EVAN RANDOLPH,
ISAAC JEANES,
LEWIS AUDENREID,

E. H. TROTTER,
JAS. F. STOCKDALE,
BENJAMIN BULLOCK,
HENRY PREAUT,
CLARENCE H. CLARK,
JOHN DEVEREUX,
R. K. JAMISON,
WILLIAM GREER,
FRED. H. NEWHALL,
HENRY C. GIBSON,
JOSIAH BACON,
DR. E. C. KAMERLY,
GEO. L. HARRISON,
JAMES ALBRIGHT,
GEORGE WHITNEY,
E. W. CLARK,
E. A. KNIGHT,
J. GULLINGHAM FELL,
GEORGE D. PARKER

J. G. ROSENGARTEN,
 JOHN C. MCCALL,
 WILLIAM S. GRANT,
 WILLIAM D. LEWIS,
 Gen. C. M. PREVOST,
 GEORGE W. BIDDLE,
 E. C. KNIGHT,
 J. B. LIPPINCOTT,
 COFFIN COLKET,
 WM. H. HORSTMANN,
 E. HARPER JEFFRIES,
 ALFRED D. JESSUP,
 DAVID S. BROWN,
 JOSEPH LEA,
 FRANCIS R. COPE,
 ANDREW WHEELER,
 WILLIAM J. NEAD,
 JOHN J. THOMPSON,
 THOMAS SMITH,
 D. B. CUMMINS,
 E. M. LEWIS,
 B. B. COMEGYS,
 JOSEPH MOORE,
 A. G. COFFIN,
 WILLIAM ADAMSON,
 C. H. SCHÖNER,
 W. C. ALLISON,
 J. B. MCCREARY,
 LOUIS WAGNER,
 JOHN E. GRAEFF,
 Gen. JOSHUA T. OWEN,
 HENRY BUMM,
 HENRY LEWIS,
 RICHARD WOOD,
 SAMUEL W. CATTALL,
 HENRY HUHN,
 JAMES L. CLAGHORN,
 JOHN W. FORNEY,
 FRED. FRALEY,
 W. W. HARDING,
 A. R. MCHENRY,
 H. G. GOWEN,
 ROBERT SHOEMAKER,
 CHARLES VEZIN,
 F. W. LOCKWOOD,
 L. WESTERGAARD,
 JOS. BAILEY,
 J. E. CALDWELL,
 J. M. WHITALL,
 H. B. BENNERS,
 L. C. MADEIRA,
 THOMAS B. WATTSON,
 WILLIAM BROCKIE,
 GEORGE C. CARSON,
 C. P. KNIGHT,
 JOHN L. HOUGH,
 P. B. MINGLE,
 FRED. GERKER,
 E. C. EBY,
 WILLIAM B. MANN,
 JAMES GRAHAM,
 H. W. WORKMAN,
 JERRY WALKER,
 E. A. SOUDER,
 WILLIAM CUMMINGS,
 THEO. CUYLER,
 ROBERT K. NEFF,

G. F. LENNIG,
 Gen. ROBT. L. BODINE,
 J. EDGAR THOMSON,
 A. C. CRAIGE,
 STEPHEN FLANAGAN,
 B. H. BARTOL,
 THOMAS CLYDE,
 J. VAUGHAN MERRICK,
 HENRY GEIGER,
 A. J. FOCHT,
 ED. S. HANDY,
 WM. MCALEER,
 J. S. NEWLIN,
 BENJ. HORNER,
 CHARLES J. SHARPLESS,
 REEVE L. KNIGHT,
 CLEMENT BIDDLE,
 BENJ. ORNE,
 JOHN W. THOMAS,
 HENRY M. STONE,
 C. H. CUMMINGS,
 W. E. LOCKWOOD,
 MADISON R. HARRIS,
 CHARLES SMITH,
 O. S. JANNEY,
 FRANCIS JORDAN,
 J. V. CREELY,
 ISAAC G. COLESBERRY,
 Hon. J. F. BELSTERLING,
 CHARLES B. TREGO,
 N. P. SHORTRIDGE,
 H. H. LIPPINCOTT,
 JOHN H. KRAUSE,
 THORNTON CONROW,
 JAS. S. MARTIN,
 GEORGE I. WATERMAN,
 WILLIAM T. KIRK,
 ISAAC HOUGH,
 F. F. BERNADOU,
 WILLIAM L. JAMES,
 HENRY MARCUS,
 C. H. GARDEN,
 AUGUSTUS HEATON,
 WILLIAM H. SOWERS,
 WILLIAM S. STOKLEY,
 JOHN L. SHOEMAKER,
 THOMAS A. SCOTT,
 J. M. VANCE,
 N. B. KNEASS,
 A. H. FRANCISCUS,
 E. P. KERSHOW,
 E. TRACY,
 HENRY DAVIS,
 ASA WHITNEY,
 WM. L. MCDOWELL,
 HENRY D. WELSH,
 A. F. CHESBROUGH,
 E. H. BUTLER,
 W. H. FLITCRAFT,
 HENRY W. GRAY,
 ISAAC KOHN,
 C. MAGARGEE,
 ROBERT H. BEATTY,
 J. M. WILCOX,
 SAMUEL G. KING,
 THOMAS SPARKS,
 GEORGE TRUMAN,

M. J. DOHAN,
 ISAAC HINCKLEY,
 THOS. DOLAN,
 HERMAN J. LOMBAERT,
 JOHN P. WETHERILL,
 J. W. JONES,
 GEO. A. NICOLLS,
 J. P. AERTSEN,
 M. P. HUTCHINSON,
 ASA PACKER,
 E. A. ROLLINS,
 F. A. COMLY,
 GEO. HOWELL,
 SAMUEL FIELD,
 SAMUEL WELSH,
 JOHN WELSH, JR.,
 JOHN P. VERRER,
 WM. E. LITTLETON,
 WASHINGTON BUTCHER,
 WILLIAM DORSEY,
 A. F. EBERMAN,
 ROBERT CORNELIUS,
 SAMUEL J. CHRISTIAN,
 WILLIAM P. ELLISON,
 THOMAS H. MOORE,
 A. K. MCCLURE,
 PETER WILLIAMSON,
 FREDERICK LADNER,
 J. L. ERRINGER,
 WILLIAM G. BOULTON,
 EDWARD S. CLARKE,
 ROBERT TOLAND,
 WILLIAM M. GREINER,
 EDWIN GREBLE,
 WILLIAM M. BAIRD,
 JOHN RICE,
 SAMUEL T. BODINE,
 WILLIAM PURVES,
 SAUNDERS LEWIS,
 WM. C. HOUSTON,
 JOSHUA P. EYRE,
 THOS. P. STOTESBURY,
 DANIEL SMITH,
 CHRISTIAN J. HOFFMAN,
 CHAS. MACALESTER,
 GEO. H. STUART,
 CHAS. S. LEWIS,
 JOHN B. AUSTIN,
 SAMUEL BISPHAM,
 WM. STEVENSON,
 SAMUEL B. THOMAS,
 P. FITZPATRICK,
 MORO PHILIPS,
 JESSE GODLEY,
 D. H. KIRKPATRICK,
 W. H. ASHHURST,
 JOHN ROBBINS,
 M. HALL STANTON,
 WILLIAM ANSPACH,
 ORLANDO CREASE,
 WM. A. PORTER,
 EDMUND L. LEVY,
 Gen. GIDEON CLARKE,
 WM. L. HIRST,
 HENRY BORAEEF,
 JAS. BONBRIGHT,

BENJ. HOMER,
 CHARLES PLATT,
 C. B. DURBOROW,
 F. A. KLEMM,
 S. GROSS FRY,
 J. FRALEY SMITH,
 JOS. H. TROTTER,
 WM. CRAMP,
 L. C. CASSIDY,
 GEO. N. ALLEN,
 JOHN A. SHERMER,
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 JACOB G. NEAFIE,
 JOSEPH WAYNE,
 Gen. JOHN F. BALLIER,
 ALEX M. FOX,
 JOS. F. MARCER,
 JOHN O'BYRNE,
 THOS. G. HOOD,
 THOS. W. EVANS,
 WM. R. LEEDS,
 GEORGE K. ZEIGLER,
 D. C. W. SMITH,
 WISTAR MORRIS,
 JNO. H. CATHERWOOD,
 E. N. BENSON,
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 THADDEUS FAIRBANKS,
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Secretaries :

ALEX. P. COLESBERRY,	ALEX. J. MCCLEARY,	FRANK WELLS,	DENNIS F. DEALY,
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JAS. S. CHAMBERS,	HARRY TODD,	ROBT. A. WELSH,	EDMUND DEACON.
WM. F. CORBIT,			

Governor Geary, on taking the chair, said :

FELLOW CITIZENS :—Having been called to preside over the deliberations of this vast and intelligent assembly, I desire to return to you my most sincere thanks for such an honorable compliment.

We have met this evening, not for the purpose of rehearsing the oft-repeated stories of triumphant marches and victorious battle-fields, of squandered treasure and sacrificed human lives, but to hear and learn from the eloquent and distinguished gentlemen who will, in discussing one of the most important enterprises of the age, address us upon some of the most distinguishing physical features of our country, and in so doing illustrate its wonderful progress and material growth from the Atlantic to the Pacific ocean.

Particular reference will doubtless be made to the various resources and advantages of that portion of the United States territory to be traversed by the Northern Pacific Railroad, now in process of construction.

From the stern alarms of a recent civil war we turn with pleasure to the cultivation and advancement of all the arts of peace, and the development of the matchless resources of our country. It is our desire to keep pace with all the laws of progress in such manner as will guarantee life, liberty and the pursuit of happiness to all who may desire to seek new homes in the magnificent territory about to be developed, whether they be to the "manor born" or are "strangers within our gates," and thus prove that "Peace hath victories no less renowned than war."

Through the influence, wisdom and enterprise of some of the prominent merchants, bankers and railroad men of Pennsylvania, the Northern Pacific Railroad will receive and discharge many of its passengers and much of its valuable freight in Philadelphia. It will make our State the great thoroughfare of nations, and our steamship line to Europe will be an assured success.

Pennsylvanians, therefore, should not be indifferent to the Northern Pacific Railroad, as they have their highest interests involved in its prompt prosecution and speedy construction.

In conclusion, fellow citizens, I invoke your earnest co-operation and assistance in this great work, by which, in addition to the subservance of personal and local interests, the most distant portions of our country will not only be united and bound together with bonds of iron, but by the more indissoluble links of a common brotherhood. I have now the honor of introducing the orator of the evening, Hon. William D. Kelley.

The Great Thoroughfare.

Hon. WILLIAM D. KELLEY, who was received with hearty and long-continued applause, said:

I thank you, ladies and gentlemen, for this very cordial reception, and beg leave to express my gratitude to the gentlemen who, by their invitation, have afforded me an opportunity to contribute, however humbly, towards the completion of a work which, for more than a quarter of a century, I have regarded as of prime importance to the country, and of special value to my native city and State, and for the promotion of which, during that period, I have labored as opportunity offered. I do not expect the statement of facts I shall make to be accepted without many grains of allowance by those of my hearers who have not visited the trans-Missouri portion of our country; and shall not be surprised if many of you leave the hall with the opinion that I have dealt largely in exaggeration. Yet it is my purpose to speak within the limits of truth, and to make no statement that is not justified by my personal observation, or authorities that all are bound to recognize, or the concurrent statements of numbers of inhabitants of, and travellers through, the country of which I am to speak.

The truth is, that however well informed a man may be and however large the grasp of his mind, if his life has been passed between the Atlantic and the Mississippi river, he cannot fully conceive the strange contrasts between the characteristics of *the Atlantic and Pacific* portions of our

country. The difference in topography is marked, and recognized by all; but as to the subtle differences of climate, soil, temperature and atmosphere, experience, alone, can impart conviction.

About two years ago, it was my privilege, in connection with my colleagues on the Committee of Ways and Means of the National House of Representatives, to traverse the entire route of the Union and Central Pacific Road by daylight, and to visit Salt Lake City, which was, as all know, located in the heart of the "Great Desert," that it might be the centre of a Mormon empire that would be guarded by the forces of Nature against Gentile intrusion. After having somewhat studied California, with San Francisco as our head-quarters, we passed up the coast to the mouth of the Columbia river, along that beautiful stream to its confluence with the Willamette, and up the Willamette to Portland, Oregon, as a new point of departure for observation, visiting thence on one line of steamers, Oregon city, with its immense flouring and woollen mills, and on another, the grandeur (for beauty does not express it) of the Columbia river beyond the Cascades and onward to the Dalles. Though that region had so long been a matter of interest to me, the study of which had afforded so much pleasure, each day revealed new and strange conditions, and imbued me with a fresh sense, not only of the extent of our country, but of the grandeur and infinite variety of its resources and the beneficence and power of the Almighty, in adapting a

parts of it to the sustenance and comfort of man. But of this hereafter.

Let me first invite your attention to facts within the memory of some of my auditors, which show that the resources of the new northwest and its adaptability to railroad purposes are not, as is sometimes intimated, of recent discovery, but have long been known, and that the route of the Northern Pacific Railroad is that originally proposed, because it is the shortest and best by which to connect the seaboard at Baltimore, Philadelphia, New York, Boston and Portland, Me., with the waters of Puget Sound and the commerce of the ancient East, which is now the West, the march towards which, of American ideas is illustrating again the truth that,

"Westward the course of empire takes its way."

Pacific Railroad History.

During the summer of 1845, twenty-six years ago, Asa Whitney, of New York, who had spent many years in China, and sought, by all such agencies as were at the command of private enterprise, information about the country lying between Lake Michigan and Puget Sound, did me the honor to seek my acquaintance and bring to my attention the subject of a railroad from the base of the Lake to some point in Oregon, on the waters of Puget Sound or the Columbia river, or to a point on each. The whole subject was new to me; but Mr. Whitney came prepared to enlighten those who were ignorant, and to inspire with faith those who doubted. His general views were in print, and embodied columns of statistics, obtained from official sources, and many facts reported by persons who had travelled more or less through the region which the proposed road was to traverse. The magnitude of the subject inspired me, and my enthusiasm for his great project induced Mr. Whitney, despite the disparity in our years, to favor me with frequent conferences, and to bring to my attention whatever information relating

to the subject he obtained. Early in the year 1846, I felt justified, by the growth of sentiment in its favor, in undertaking to secure him an opportunity to present his project to a public meeting of the citizens of Philadelphia. To induce a sufficient number of gentlemen to act as officers of the meeting was the work of time. I found few who took an interest in, or believed in the feasibility of, the project. Some said that a railroad so far north would not be available for as many months in the year as the Pennsylvania canals were; that it would be buried in snow more than half the year. Others cried, "What madness to talk of a railroad more than two thousand miles long through that wilderness, when it is impossible to build one over the Alleghanies!" [Laughter and applause.]

As I went from man to man with Mr. Whitney's invaluable collection of facts and figures, I discovered that the doubts with which the work must contend were infinite in number, and it was not until six months had elapsed that a sufficient number of well-known citizens to constitute the officers of a meeting had consented to sign the call for one and act as such. But patience and perseverance accomplish a good deal in this world. The cause had gained adherents, and, as I find by reference to the papers of that day, the meeting for which I had so long labored was held in the Chinese Museum, on the evening of December 23d, 1846. Some of these, my venerable friends who sit around me, probably remember the occasion, as I see among them some who acted as officers. His Honor, John Swift, then Mayor of the city, presided. Col. James Page, Hons. Richard Vaux, William M. Meredith and John F. Belsterling, with Mr. David S. Brown and Mr. Charles B. Trego (all of whom still survive) were among the vice presidents; and Senator Wm. A. Crabb, now deceased, and William D. Kelley served as secretaries. The speakers were

Messrs. Whitney, Josiah Randall, Peter A. Browne and William D. Kelley.

Mayor Swift, with a few cautious words commendatory of his great enterprise, introduced Mr. Whitney, who stated, with great clearness, his project, and the advantages that would result from its execution. It was, he said, to be a railroad from Lake Michigan to a point on navigable water in Oregon. He believed that it could be constructed on a line about 2400 miles in length; and that he and his associates hoped to be able to build it in twenty years, if the Government would grant sixty miles breadth of land for the whole distance. When asked how he would make land in that remote northern wilderness available for the building of a road, he described the character of the climate, and showed that north of the forty-ninth degree of north latitude, and in valleys extending up to the fifty-sixth degree, the climate was in summer as genial as that of Southern Pennsylvania; and asserted emphatically that a railroad through that section would be less obstructed by snow than one through Central New York or Pennsylvania.

His scheme was to organize a vast system of immigration from the cities of the Eastern States and from Europe; the workmen were to be paid in part in land, and a corps was to be detailed to prepare a part of each farm for cultivation the next year, so that when the laborers of the second year should go forward they would leave behind them those of the first as farmers and guardsmen of the road; by this process many millions of poor and oppressed people would be lifted to the dignity of free-holding American citizens, and the great route for the commerce of the world would be established amid the development of the boundless resources of the yet new Northwest. (Applause.)

At the close of an eloquent address, the late Josiah Randall, Esq., submitted a series of resolutions, from which I quote the following, which were heartily adopted:

"Whereas, the completion of a railroad from Lake Michigan to the Pacific would secure the carrying of the greater portion of the commerce of the world to American enterprise, and open to it the markets of Japan and the vast empire of China, of all India, and of all the islands of the Pacific and Indian Oceans, together with those of the Western Coast of Mexico and South America;

And, whereas, we have in our public lands a fund sufficient for and appropriate to the construction of so great and beneficent a work; and the proposition of Asa Whitney, Esq., of New York, to construct a railroad from Lake Michigan to the Pacific for the grant of a strip of land 60 miles wide, offers a feasible and cheap, if not the only plan for the early completion of an avenue from ocean to ocean; therefore,

"Resolved, That we cordially approve of the project of Asa Whitney, Esq., for the construction of a railroad to the Pacific, and respectfully petition Congress to grant or set apart, before the close of the present session, the lands prayed for by Mr. Whitney for this purpose."

It was also resolved to send copies of the resolutions and proceedings of the meeting to our senators and members of Congress, and to the Governor of the Commonwealth, with the request that he would bring the subject to the attention of the Legislature.

Encouraged by this success, Mr. Whitney visited other cities, and brought his plans before the people. On the 4th of January, 1847, he addressed an immense meeting in the Tabernacle, New York, which was presided over by the mayor and participated in by the leading men of that city. His remarks were listened to, but at their close a mob took possession of the hall and denounced the project as a swindle, declaring that it was an attempt on the part of a band of conspirators to defraud the people by inducing the Government to make an immense grant of land for an impracticable project.

This was the initial movement of a powerful and organized opposition, before which Mr. Whitney retired, silenced in his effort to promote one of the grandest works ever conceived by an American citizen. (Applause.) But his labors had not been in vain. On the 23d of June, 1848, Hon. James Pollock, the present Director of the United States Mint, who does me the honor to listen to me, and who was then in Congress from this State,

chairman of a special committee appointed in accordance with a resolution he had offered, presented a favorable report on the project of a Pacific Railroad, recommending that steps be taken to secure adequate explorations and surveys of the trans-Mississippi country. The "madness" of the project was still laughed at even by "grave and revered" senators; and it was not until the 3d of March, 1853, that the President signed an act authorizing the Secretary of War, under his direction, "to employ such portion of the corps of topographical engineers and such other persons as he may deem necessary to make such explorations and surveys as he may deem advisable, to ascertain the most practicable and economical route for a railroad from the Mississippi river to the Pacific ocean." Effect was given to this resolution at the earliest day, but it was not until the 27th of February, 1855, that the Secretary of War was able to submit to the President, for communication to Congress, the reports of the several surveying parties. The first of these reports were given to the public by order of Congress in the latter part of that year. They fill thirteen large quarto volumes, and I shall have occasion to refer to them hereafter.

The Pennsylvania Central Road.

As experience is a trusted teacher it may be well to pause and examine the condition of the railroad interests of the country at that time. At the close of 1846, we had 4930 miles of road in operation, 297 of which had been completed during that year. A system of continuous railroad had not been proposed. Until about that time the function of railroads had been assumed to be to connect water-courses. Thus the Columbia Railroad constructed by our State authorities, connected the waters of the *Pennsylvania* canals with those of the *Delaware* river; the Camden and Amboy road connected the waters of the Dela-

ware with those of the Raritan; from Philadelphia to Baltimore, until 1838, communication was by steamboat from Philadelphia to Newcastle, thence by rail to Frenchtown, thence by steamboat to Baltimore. The route from Boston to New York was by railroad from Boston to Providence, and by steamboat thence to New York. These connecting links of road soon developed a commerce, not equal to their capacity but beyond that of available water conveyance, and thus demonstrated the necessity of a more general resort to roads. Hence the subject of the expansion of our system was attracting attention. The construction of the Pennsylvania Central road was under consideration. On the 3d of April, 1846, the Legislature, after much and violent controversy, had consented to give the madcaps, who were willing to engage in such a project, a charter; but to prevent them from practising fraud, by peddling the franchise or holding it for sinister purposes, the act required that \$2,500,000 of stock should be subscribed, and that the enormous sum of \$250,000 should be paid in before the issuing of letters patent. Most of you, doubtless, suppose that the requisite subscription was obtained at once. No; nearly twelve months were required to induce the enterprising men of Philadelphia to risk two millions and a half of dollars in building a road over the Alleghanies. "The grades on the road," it was said, "would be impracticable; the heavy snows and long winter would render the road unavailable; the project was a mad one." Those only who remember the efforts required to induce the people of Pennsylvania to make that small subscription would believe the story, could it be faithfully told. The active young men of this day would regard it as a pungent satire.

Town meetings were held, and "block-committees" were appointed, by whom citizens were solicited to subscribe for five shares or three or one, for the sake of

the experiment, even though the investment might be unproductive. Meetings of draymen and porters were held, and they were shown that if each would take a share, it would help the enterprise; that if the road should prove a success they would get good interest on their money with great increase of business; and if not, it would have been wisely spent in promoting an enterprise which, in the judgment of many good men, promised great benefit to the City and State.

I have spoken of the business men of Philadelphia, but the appeal was not to them alone; it was to the people of Pennsylvania. This was to be a Pennsylvania road, and by the act of incorporation the commissioners for receiving subscriptions were required to open books at Pittsburg, Hollidaysburg, Harrisburg, and all the chief towns along the line of the road, as well as in Philadelphia; and the energy, enterprise, and capital of the whole State stood appalled at the magnitude and doubtful character of an undertaking to build a continuous line of railroad from Philadelphia to Pittsburg.

It was not until the 30th of March, 1847, but three days less than one year from the granting of the charter that the petty subscription required was obtained, letters patent issued, and a board of directors organized. And it remained for some time thereafter a grave question whether capital could be obtained by subscription or loan to complete the road.

But by the middle of October, 1850, a single track was completed from Harrisburg, its then point of departure, to Hollidaysburg, at the foot of the Alleghany mountains. The triumph was immense; and on the 18th of October, 1850, the event was celebrated by an excursion, which was enjoyed by many prominent business men and other friends of the road. In the evening a meeting was held over a pleasant dinner, at which I remember my friend, General Patterson (pointing to the general, who sat on the stage in

company with Governor Geary), and his friend, old General Riley, were speakers. The late President Buchanan and Joseph R. Ingersoll, Esq., also deceased, spoke. At the close of a very brilliant speech, my friend, Morton McMichael, Esq., did me the honor to introduce me as one who had been an early and efficient friend of the road.

From a musty copy of the *North American* now before me, I find that, among other things, I expressed my pride "in the fact that I was a Philadelphian, a member of that community which, with aid from but a single township—that of Allegheny—had, in the face of a host of discouragements, embarked their capital, enterprise, energy and skill in the construction of the magnificent road over which we had travelled that day, and which, though not yet completed, was sufficiently advanced to earn in a few years, the means for its completion, should they not be supplied from other sources." And, alluding to what was then my favorite project, I said:

"The English mail for Calcutta will yet travel over our Pennsylvania Railroad, and its iron ribs will groan under the weight of commodities passing to and fro between the 250,000,000 of people east of the Atlantic and the 750,000,000 west of the Pacific. The discovery of our Continent by Columbus was accidental; but the builders of this road and its several continuations through the Western States are vindicating his sagacity. He sailed due west from Europe to find a shorter route to the wealth of India. He was right; the fact that he encountered a continent did not increase the distance between the points; it did but demonstrate the necessity for a new mode of conveyance. This the railroad and locomotive supply. The passage of the two oceans by steam and the crossing of our country on a railroad will reduce the time requisite for a voyage from London to Canton to less than thirty days.

"Columbus was no enthusiast. He looked calmly and gravely at facts, and spoke the words of sober wisdom; and so, let folly sneer as it may, do those who speak of the Pennsylvania road as a link in a chain of commercial facilities which is to girdle the earth." [Applause.]

And again:

"The Mississippi Valley is not our Western country, nor is the Pacific coast of our country the 'far West' we look to. Columbus would go west to the Indies; and we will do it. The riches of our West, now the world's East, will back us

road, stimulate our agriculture, develop our vast mineral resources, quicken and expand our enterprise, and drop their fatness throughout our borders." [Applause.]

I find that, when somewhat laughed at for this outburst of subdued enthusiasm, I replied by saying:

"Why, you can find in Philadelphia to-day more men clamorous for a road from St. Louis to San Francisco than you could who believed in the possibility of constructing a continuous road over the mountains hence to Pittsburg six years ago."

This, you will remember, was after the acquisition of California and the discovery of her gold-fields.

A Quarter of a Century.

But to return to 1846, a quarter of a century ago. Let no man think that the Pacific Railroad then projected was to run to San Francisco, or elsewhere than to the heart of the unorganized Territory of Oregon, which extended from the 42d to the 49th parallel of latitude, and embraced what is now the State of Oregon and Washington Territory, into which no settlers had yet gone.

There was then no San Francisco. Not a cabin or hut stood within the now corporate limits of that beautiful and prosperous city. California, Nevada, Arizona and New Mexico, were still Mexican territory. Neither science nor observation had detected the deposits of gold and silver, or the agricultural capabilities of that vast region of country. The great railroad centre of the West, Chicago, had not yet come into public view. The less than 10,000 people who had gathered at the confluence of the Chicago river with Lake Michigan had no presentiment that the swamp in which they dwelt would, in less than twenty years, be filled up and raised nearly twenty feet, to provide drainage for the streets of the most enterprising and remarkable city in the world, of its age. Michigan then had a population of less than 250,000, and Wisconsin and Iowa each but 100,000; and civilization had not yet penetrated the wide

region then known as Minnesota territory, where the census takers, four years later, found but 6,038 people. Four years later there were but 91,635 people in California, which had then been ceded to us by Mexico, and admitted to the Union as a State, and whose recently discovered deposits of gold had attracted immigrants from every clime. There was no government in Kansas and Nebraska, that whole fertile region being in possession of the Indian and the buffalo. The name of that busy centre of river and railroad commerce, Omaha, had not been heard by English-speaking people, and the vast mineral, grazing and agricultural region through which the Union and Central Pacific railroad is now doing a profitable and rapidly increasing business, was noted by geographers as the "Great American Desert." Philadelphia had no railroad connection with Pittsburg, Pittsburg none with Cincinnati or Chicago, nor any of these with St. Louis. The northwestern part of our State was known as the "wild-cat country," in which it was regarded as a misfortune to own land unless it was timbered and on the banks of a mountain stream; and properties in that wide section in which coal and petroleum have since been discovered were sold every few years for taxes, because people could not afford to own land in such a cold, mountainous, unproductive and inaccessible country. [Laughter and applause.]

Surely the world moves and time does work wonders. What railroads we have you know; what railroads we are to have you only begin to suspect. In Europe, during this quarter of a century, dynasties and the boundaries of empires have changed, but the increase of population has been scarcely perceptible. The oppressions of the feudal past linger there, and cannot be shaken off. But here, where man is free, and nature offers boundless returns to enterprise, broad empires have risen, embracing towns, cities, and states; and millions of people born in many lands

with poverty and oppression as their only birthright, are now, as American citizens, enjoying all the comforts and refinements of civilization, and with capital rivaling that of European princes, originating and pressing forward great enterprises which are in the next quarter of a century to work more marvellous changes than any I have alluded to. Yes, ladies and gentlemen, were supernal power to unfold to our view our country as it shall be a quarter of a century hence, the most far-seeing and sanguine of us would regard the reality as a magnificent delusion. Our extension of territory and law, great as it has been, is of small consequence in comparison with the achievements of mind in the empire of science and art, whereby man is enabled to produce ten-fold, and in many departments of productive industry, a hundred-fold as much as he could twenty-five years ago by the same amount of labor. New roads are to be built; new towns, cities and states to be created; new resources developed; and the sluggish people of the Orient are to be awakened to their own interests and induced to contribute their vast share to the progress and commerce of the world. The vision that filled the soul of Columbus was a grand one; but that which opens to our view, and should possess and animate us, is as much grander and more beneficent as the civilization and arts of the close of the 19th are superior to those of the dawning days of the 14th century.

The Northern Pacific Railroad.

I regard the construction of the Northern Pacific Railroad as chief among the great works of the future, and believe that while it will be a magnificent monument to its builders and promoters, and abundantly reward their enterprise and labor, its construction will add inconceivably to the wealth, power and influence of the nation. It will open to

settlement under the homestead and pre-emption laws a territory that would accommodate all the peasantry of Europe, and, by the development of its boundless and varied mineral and agricultural resources, lift millions of men from poverty to wealth, and enable many who are burdens upon society to bless it by their prosperity. [Applause.]

These are well considered convictions. If I am mistaken, I have, as I have shown you, cherished the delusion through the greater part of my manhood; and the study of many authorities, much intercourse with men, and extended travel have only served to confirm it. Nor do I now express them for the first time. On the 26th of April, 1866, a bill proposing to authorize the government to aid in the construction of the Northern Pacific Railroad was under consideration by Congress, and I participated in the discussion. By reference to the *Globe*, I find, that after having characterized the construction of the road as a matter of not only National, but world-wide importance, I said:

"From Lake Superior to Puget Sound! A railroad stretching from Lake Superior to Puget Sound, a distance of 1800 miles! To open to civilization an empire longer and broader than Western Europe, from the southern vinelands of sunny Spain on the one hand to the hyperborean forests of Norway on the other! Yes, sir; an empire equal in extent to England, Ireland, Scotland, France, Belgium, the German States, Austria, Holland, Italy, Switzerland, Denmark, Sweden, Norway, Spain and Portugal.

"We fail, Mr. Speaker, to understand our relations to the age in which we live and our duties to mankind, because we fail to appreciate the grand dimensions and unimagined resources of our country. We would regard ourselves as giants did we estimate ourselves in proportion to possessions so grand in a country so abounding in multiform resources, so undeveloped, and so sparsely settled.

"The region through which it is proposed to construct this road, exceeding in extent all the countries I have named, also embodies more mineral wealth than they all combined ever possessed. But what is its condition? It is a wilderness. Almost every acre of it is still innocent of the tread of a tax collector. It yields the Government no revenue. Along the Pacific coast a few thriving villages dot it. Some of them will one day be great cities, but they are now on the borders of a vast wilderness."

Compared with Other Routes.

But there are those who, while admitting the vast extent and wonderful resources of the country, assert that it is unfit for occupancy by communities by reason of its high latitude and the altitude of its mountains. They present all the objections that were made to the construction of the Pennsylvania Railroad. "The mountains are too high," "the snows are too deep, and lie too long!" Are not these objections as groundless in this case as they were in that? Let us see. Government surveys and other observations show, beyond reasonable question, that a railroad between the 46th and 49th parallels will have a better route than any other road north of the 32d degree, which line has the drawback of a summer climate that is so nearly tropical as to interfere with travel and the general transit of goods. I am convinced that the country through which the Northern Pacific Railroad is to pass will, twenty-five years hence, contain double the population that will then be found along the line of the road which connects Omaha and Sacramento. Indeed I believe I would be within the bounds of reasonable prediction if I made my proposition embrace the continuation of the road from the City of Sacramento to San Francisco, notwithstanding the wondrous attractions California presents to those who are seeking a new home and more profitable field for enterprise.

The Central route must create its way traffic; none awaited its construction. From Omaha to Sacramento not a navigable stream crosses the route of the Union and Central road; nor does one approach it. Let me not be understood as disparaging the value of this road, or as intimating that it is not already doing a profitable business, or that it will not, as every other railroad in this country has done, create a constantly increasing volume of business that will enable it to rapidly decrease its rates

for freight and travel, while increasing its income and net profits. Indeed it is already doing this, and its present charges for freight and travel compare very favorably with those of 1869.

Yes, it has its way business to create, and is doing it rapidly. Witness the two branch roads already constructed, one from Denver to Cheyenne, and the other from Salt Lake City to Ogden. Before the main line was built, who dreamed of railroads along either of those valleys? Behold, also, the enormous development of the coal and iron fields at Evanston, a little west of Cheyenne, and more than 500 miles west of Omaha. Two years ago the fact was proudly announced that both coal and iron had been discovered at Evanston; and now the place is marked by the smoke and din of forges, furnaces, rolling-mills, machine shops, and preparations are making for the manufacture of Bessemer steel rails, the construction of the works having been commenced. [Applause.]

Look, too, at the marvellous development by "gentile" hands of the silver mines in southern Utah, to which the Mormons, Brigham Young having driven the first spike about a fortnight ago, are extending their branch road in order to carry silver ore, the transportation of which from the mines to Swansea, England, taxes it \$40 a ton. This tax will be saved when some American shall be enterprising enough to put up smelting works in a country in which coal and rich ores abound. Yes, British vessels coming to New York and Philadelphia with salt or iron return freighted with the ores of southern Utah, because we have not the enterprise to smelt it.

Look, again, at the development of the wool trade. In many of the valleys along the line of the Central and Union road there are flocks numbering not thirty, not fifty, not a hundred sheep, as in the old States, but thousands; and some flocks numbering more than ten thousand head now range valleys in the very heart of the

at American Desert," where it was
posed civilization would never find an
e.

at a field for genius, enterprise and
try! It will, at no distant day,
n with men of grit. There are thou-
s of young men in this city filling
offices, or in some other way
ng up a precarious living, getting
gh the world somehow, never know-
hether both ends will meet at the end
y month, who, were they to go to this
try, carrying with them the know-
e gained in our furnaces, machine
s or factories, would in a few years
themselves at the head of large estab-
ments and commanding hundreds of
oyees. [Applause.] I rejoice in the
that the Grand Army of the Republic
ganizing one-armed and one-legged
ers to go and settle in colonies upon
ublic lands, on the theory that their
s and children will share their labors
curing a homestead and honest inde-
lence. The scheme is as judicious as
noble, and the poor disabled fellows
I doubt not, in a few years write back
heir less energetic but unimutilated
rades to come and work for and be
nd clothed by them. [Laughter and
ause.]

hese branch roads and expanding
stries are but some of the many pre-
ors and sure pledges of the immense
ces of traffic that are to rise along a
, the drinking water for many of
se agents, as well as for the supply of
y of its engines, is brought in tanks
alkaline plains for hundreds of
s, and one of the summits of which,
erman, is a mile and a-half above the
most spire of Philadelphia, and 3285
higher than the most elevated sum-
on the Northern road,—that at Deer
ge Pass.

Growth of Railroad Traffic.

hat this road will create business for
f, and speedily return the capital
arked in its construction I am abun-

dantly persuaded. This opinion is con-
firmed by the highest authority on such
questions known to railroad men in this
country, H. V. Poor, Esq., who, in his
admirable sketch of the railroads of the
United States, published last year, says:

"It is safe to estimate that the railroad tonnage
of the country would duplicate itself as often as
once in ten years, were there no increase of line
or population, from the progress made in its indus-
tries and in the mechanic arts."

Mr. Poor amply sustains this proposi-
tion by facts deduced from the railroad
history of the country, and says:

"Our means will increase just in the degree in
which we render available the wealth that now
lies dormant in our soil."

Speaking of the year 1869, he says:

"The tonnage traffic of the railroads constructed
the past year, at only one thousand tons to the
mile, will equal five million tons, having a value
of \$750,000,000! Every road constructed adds
five times its value to the aggregate value of the
property of the country. The cost of the works
constructed the past year will equal at least
\$150,000,000. The increased value, consequently,
of property due to the construction will equal
\$600,000,000."

These observations of Mr. Poor are
specially applicable to the Northern
Pacific Road, the construction of which
will not only create an immense vol-
ume of through travel, but develop a
region not exceeded in native wealth by
any equal area on the face of the globe;
which abounds in the precious and other
metals, in wheat-lands and lumber forests,
and embraces the natural home of the
sheep and goat, and grazing fields in
which herds of cattle large enough to
supply our entire market, may graze
throughout the year, growing and fatten-
ing upon natural grasses, which in the
dry atmosphere of the country, do not
decompose as ours do when exposed to
the weather, but cure where they grow,
and feed herds of buffalo, elk, antelope
and mountain sheep the year round

The New Northwest.

Minnesota, through which the road
will be completed by October, from
Lake Superior to the Red river, 266 miles

is the great wheat field of our country. It is a land of lakes and rivers, of forest and prairie. Its farmers are prosperous and contented. Its population numbered 6077 in 1850; had swollen to 172,022 by 1860; and was found to be 436,057 in 1870. The value of its farm products as reported by the census of 1870 was \$33,350,923; the cash value of its farms \$97,621,691; and its production of wheat during 1869 was about 19,000,000 bushels. It contains (listen, young men who are working for wages,) 53,459,840 acres, of which but 3,637,671 are occupied. The remaining 50,000,000 await your coming for their development. [Applause.] It is not yet fourteen years since the lumbermen of Minnesota were fed on wheat imported from other States. Yet the wheat crop raised during 1870, from the small part of the State then occupied, is believed to have been not less than 30,000,000 bushels. Time will not permit me even to indicate the immense resources of this State in lumber, iron, slate, and other commodities, that bear transportation; and I leave Minnesota with the remark that when the winter traveler westward on the Northern Pacific Railroad, shall leave her limits and cross the Red river of the North, he will leave behind him the coldest part of the road and that most liable to obstruction by snow. The only other point at which he will, even under exceptional circumstances, meet with as great a depression of the mercury will be in the neighborhood of Fort Stevenson, in Central Dakota.

A Genial Climate.

How, ladies and gentlemen, shall I help you to understand something about the climate of the country west of Minnesota? To us of the East it seems incredible that the temperature of the mountains, along a line running between the 47th and 49th parallels should be so *mild*; yet so it is; and the climate of *Washington Territory*, along the 49th parallel, is more equable the year round,

and milder in winter than that of Philadelphia or Baltimore. Indeed, the mean temperature at Olympia, at the head of Puget Sound, is that of Norfolk, Va., but the dwellers on the Sound are strangers alike to the extreme heat of a Virginia summer and the extreme cold of its winter. There cattle are not housed at any season, and thrive upon the grasses they find on the plains. In the western valleys of Washington Territory, winter is unknown. Snow comes occasionally to remind settlers of what they used to see in the States of the East; but it never lies. But once since 1847, when the first settlements were made, have cattle been deprived by snow for three consecutive days, of the natural pasture furnished throughout the winter months west of the mountains in Washington Territory and Oregon.

The winter climate upon the mountains of Idaho, Montana and Dakota is more severe; but in their valleys the buffalo, elk and antelope have been accustomed to winter; and domestic cattle, worn by labor in the service of exploring expeditions and transportation companies, are turned into the valleys and herded, and come out in the spring fat and ready for another tour of duty. This is so inconsistent with our experience, that I beg leave to fortify the statement with a single authority, the equal to which I could produce by scores. I will, however, content myself with a brief extract from the report of explorations of the Yellowstone, made by Gen. Reynolds, of the Engineer Corps of the U. S. Army, who wintered, in 1860, in the valley of Deer Creek, in which the Northern Pacific Road will attain its greatest elevation and cross the Rocky Mountains. On this subject he says:

"Throughout the whole of the season's march, the subsistence of our animals had been obtained by grazing after we had reached camp in the afternoon, and for an hour or two between the dawn of day and our time of starting. The consequence was that when we reached our winter quarters there were but few animals in the train that were in a condition to have continued the march without a generous grain diet. Poorer and more broken

down creatures it would be difficult to find. In the spring all were in as fine condition for commencing another season's work as could be desired. A greater change in their appearance could not have been produced, even if they had been grain-fed and stable-housed all winter. *Only one was lost*, the furious storm of December coming on before it had gained sufficient strength to endure it. *This fact, that seventy exhausted animals turned out to winter on the plains on the first of November, came out in the best condition, and with the loss of but one, is the most forcible commentary I can make on the quality of the grass and the character of the winter."*

This seems incredible, but many degrees to the north of our territories are immense valleys, which, if the testimony of British officers, civil and military, of missionaries and settlers who have dwelt there for years, may be believed, rival Minnesota in wheat-producing capacity, and eastern Oregon and Washington Territory in the mildness of their mean temperature. Exploration and settlement have abolished "The Great American Desert," of which these territories formed a conspicuous part, and it no longer finds a place on maps. And the Mormons have demonstrated that by conducting the melting snow of the mountains to the foot-hills and valleys, the whole region can be made to bloom as the rose, and bear crops of cereals, roots and fruit equal to those yielded by the best farms in the choice valleys of Pennsylvania.

Wool and Beet-Root Sugar.

Since these apparently inhospitable regions have been penetrated by railroads, and mining adventure has created settlements up even to the northern boundary of Dakota, Montana and Idaho, we are discovering why we have not succeeded in raising wool, and why we are still, while boasting of our agricultural productions, dependent upon non-manufacturing countries which are not famed for their agricultural resources or skill, for our supply of wool. The reason is found in the fact that we have not carried flocks to those portions of our country which are pre-eminently adapted to the support of wool-bearing animals.

Mountainous and volcanic as are our

territories, which extend from the 32d to the 49th parallel, they are peculiarly adapted to sheep culture. With their settlement we shall become the greatest wool-producing country of the world, though our present production gives but small promise of such a result. The sources and amount of the wool-clip of 1868 were in round figures about as follows:

	POUNDS.
British North American	
Provinces,	10,000,000
Australia, South America, and Africa, . . .	76,000,000
United States,	100,000,000
Spain, Portugal and Italy, . .	119,000,000
France,	123,000,000
European Russia,	125,000,000
Germany,	200,000,000
Great Britain,	260,000,000
Asia,	470,000,000

Thus it appears that Asia, Australia, Africa and South America, which furnish no such markets for mutton as the commercial and manufacturing centres of Europe and this country, and where sheep must be raised for the wool alone, are its great producers. Why is wool chief among the staple exports of South America? Because her pampas present the same conditions as our territories. Why has Australia built up a great city more by its wool trade than its gold? It is because her sheep walks are dry and covered with bunch grass, which cures itself in the field as is the case in our territories. Why does Asia produce more wool than Great Britain and Germany together, and almost as much as Great Britain, Germany and the United States? It is because the grasses of the elevated plains on which her countless flocks of sheep and goats range are the same nutritious, aromatic grasses upon which the elk, the buffalo and the mountain sheep have fed through all time upon "The Great American Desert" of America. [Applause.]

Under the impulse given to this interest by the Union and Central road, flocks numbering thousands, collected in Illi

nois, Wisconsin, Iowa, and more eastern States have been transferred to such plains and valleys as are accessible by the road, and where the expense of raising sheep is but the cost of the first flock and of herding. There the finest wool may be produced, and with increasing railroad facilities, mining, manufacturing, and commercial centers will furnish markets for mutton, and add to the wool grower's profits. To say that the wool-clip of the United States, as shown by the census of 1880, will exceed that of Great Britain is not to offer a prediction, but to assert a foregone conclusion; and it is also safe to say that the clip of that year will embrace not only wool of all grades of sheep, but of the Cashmere, Angora and other goats, the value of whose hair is so well known to manufacturers and merchants. But more than this, remembering the rapidity with which flocks increase, I predict that at an early day our wool clip will equal that of Asia,* which will

* On the day after the delivery of the text, my attention was invited to the following striking confirmation of my views furnished by M. Alcan, Professor of Spinning and Weaving at the Conservatoire Impérial des Arts, &c.

APPROXIMATE PRODUCTION OF WOOLS IN 1866.

[Translated from Alcan's "Etudes sur les Arts Textile à l'Exposition Universelle de 1867" for the April number of the Bulletin of the National Association of Wool Manufacturers.]

"The quantity of the production of wools in weight may be reckoned approximately by the number of sheep in each country. We estimate the sheep at the numbers indicated in the following table:

	NO. OF SHEEP.
France,	30,000,000
Algeria,	10,000,000
Russia,	54,000,000
England,	26,376,000
Austria,	27,000,090
Prussia, Zollverein,	24,000,000
Ottoman Empire,	32,000,000
Australia,	35,000,000
Cape of Good Hope,	12,000,000
New Zealand,	15,000,000
The Equator or la Plata,	30,000,000
Spain,	20,000,090
Italy,	8,500,000
Belgium,	3,000,000
The Low Countries,	1,500,000
Portugal,	2,417,000
Total,	330,783,000

insure us supremacy in the manufacture of the entire range of woollen and worsted goods.

And with this increased production of wool, will come another great industry. You will question my judgment when I tell you that the territory along the 46th, 47th, 48th and 49th degrees of latitude high up the mountain sides is to be a great sugar-producing country. Yet as sure as that the world moves and science helps man to supply his wants cheaply, the country along the routes of the Union and Central and the Northern Pacific Railroads will in a few years produce immense quantities of sugar. Of course, I speak of beet-root sugar, the manufacture of which will thrive not only along our northern boundary, but in the more northern settlements of the Assineboine and Saskatchewan valleys as it does in Russia, Sweden and Norway; as it is already doing in California, Illinois and Wisconsin, and will do in all of the States of the Northwest. Many causes conspire to make the introduction of this industry into our country a necessity; and in the region of cheap land, abundant fuel and pure water from the mountain snows, in which the cost of transportation more than doubles the price of cane sugar, it must find an early and extensive development.

To show that these views are not new or strained, permit me to bring to your

"Remarks upon the numbers of the preceding table.—If we compare the present number of sheep as indicated in the preceding table with the numbers heretofore given by us, it will not be difficult to recognize that while the production of sheep has decreased or remained stationary in Europe, it has prodigiously developed itself in the new countries beyond the ocean. Thus, for example, the number of wool-bearing animals has diminished in England, in Spain, and even in France, if we do not include Algeria; and it has remained nearly stationary in the different parts of Germany. On the contrary, the development exhibits an enormous progression at the Cape, in Australia, and, above all, in La Plata. In seven years, from 1860 to 1867, the production has been raised nearly 108 per cent. for the first of these countries, nearly 100 per cent. for the second, and 268 per cent. for the third.

notice a letter I had the honor to address to Dr. Latham, a cultivated and intelligent gentleman, who, after spending years in the Territories, devoted last winter to bringing their resources to the attention of the wool-growers and woolen manufacturers of the Eastern States ;

" HOUSE OF REPRESENTATIVES,
Washington, D. C., Dec. 18, 1870.

" DR. H. LATHAM,

" LARAMIE,
Wyoming Territory.

" DEAR SIR.—I must admit that I thought some of the statements you made when I met you at Laramie, and you were kind enough to accompany us eastward were exaggerated ; but subsequent observation and study have satisfied me that you did not fully indicate the capacity of the territories for varied production and the sustenance of a numerous and prosperous population.

" Two industries, each of primary importance to the country, should be introduced at an early day because both will find there, the conditions under which they may be brought almost immediately to absolute perfection. I mean the growth of wool, both from the Angora and Cashmere goats and sheep, and the production of beet-root sugar. For the latter, Grant in his admirable little book, says the primary essentials are cheap land and fuel and pure water. All these you have wherever the melting snow of the mountains can be carried for irrigation, and in the neighborhood of all your mountain streams. Your natural grasses and aromatic herbage are identical with those of the great sheep-fields of Asia and Australia ; and should you establish the production of the beet, and the manufacture of sugar on a large scale, you will find, as it has been found everywhere else, that three tons of the refuse beet, from which the saccharine matter has been expressed, will be equivalent to two tons of the best hay in sustaining and fattening sheep and cattle. It, therefore, seems to me that you will render a very important service, not only to your own section, but to the country at large, if, by making known these peculiar resources you promote the establishment of two such vital industries. Either of them will doubtless succeed if undertaken by proper hands ; but both should be established, as each will contribute to the success of the other.

" Again thanking you for the important information you have given me, and wishing you abundant success in your efforts to promote the development of this extended and interesting portion of our country, I remain

" Yours, very truly,

" WM. D. KELLEY.

Montana—Lieut. Doane's Report.

Thanks to the admirable scientific training given our army officers at West Point, and the desire of that distinguished sol-

dier and son of Pennsylvania, Gen. Winfield S. Hancock, [applause,] to ascertain and disclose the resources of the district of which he is in command, we have a recent official report on the characteristics of a hitherto unexplored section of Montana, the wonders of which not only exceed those of Niagara and the geysers of California, but rival in magnitude and extraordinary combination those of the Yo Semite, the canons of Colorado and the geysers of Iceland. But I cannot pause even to allude to these. Tourists and men of science will give the world many a description of them. My purpose is to illustrate the climate and the fertility not only of the valleys but of the mountains, which bear trees rising beyond one hundred feet in height at an elevation which in New York or New England would mark the region of perpetual snow.

I have here Executive Document No. 51, of the Third Session, Forty-first Congress. It is the report (and you will see that it is quite brief) of Lieut. Gustavus C. Doane, upon the so-called Yellowstone expedition of 1870. It is Lieut Doane's account of a brief tour made by the Surveyor General of Montana, whose duty it was to survey the yet hidden region of his district, and who applied to Gen. Hancock for an escort to enable him to do so with safety. The General promptly complied with the request, and put the escort under the charge of Lieut. Doane, with instructions to keep a record, noting the condition of the barometer and thermometer, and the elevation of each day's camp, and to report these and such other facts as might in his opinion be of general interest.

The party were out thirty-four days. Their point of departure was Fort Ellis, which is at an elevation of 4911 feet, and at which the thermometer at noon, on the day of their departure, August 22, 1870, stood at 92°. On the morning of the third day they found themselves at an elevation of 4837 feet, the baromet-

standing 25.10, the thermometer 40°. In noting that day's experience, Lieut. Doane says:

"Throughout the forenoon it rained occasional showers, but before 12 o'clock the clouds rolled away in heavy masses along the mountain sides, the sun came out and the atmosphere was clear again. From this point a beautiful view is obtained. The mining camp of Emigrant Gulch is nearly opposite, on a small stream coming down from the mountains on the opposite side of the river. A few settlements have been made in this vicinity, and small herds of cattle range at will over the broad extent of the valley. Our camp was situated at the base of the foot-hills, near a small grove, from which flowed several large springs of clear water, capable of irrigating the whole bottom in front. The soil here is very fertile, and lies favorably for irrigation; timber is convenient, water everywhere abundant, and the climate for this region remarkably mild. Residents informed me that snow seldom fell in the valley. Stock of every kind subsist through the winter without being fed or sheltered. Excepting the Judith Basin, I have seen no district in the western territories so eligible for settlement as the upper valley of the Yellowstone. Several of the party were very successful during the morning in fishing for trout, of which we afterward had an abundant and continued supply. The Yellowstone here is from 50 to 100 yards wide, and at the lowest stage four feet deep on the riffles, running over a bed of drift boulders and gravel with a very rapid current. The flow of water is fully equal to that of the Missouri at Fort Benton, owing to the rapidity of the current, though the channel is much more narrow."

By the fifth day the party had attained an elevation of 7,331 feet, where the thermometer at noon marked 72°. Here they found themselves in the midst of indescribable volcanic wonders. They were, however, notwithstanding their great elevation, in the midst of groves of pine and aspen.

In his notes of the eighth day Lieut. Doane says:

"Barometer, 23°; thermometer, 50°; elevation, 7,270 feet.

"Coming into camp in advance, passing through a grove of pine—"

Can one who has not visited the pampas of South America, Australia, the elevated plains of Asia, or our own sheep-growing territory, imagine a forest of pines at 48° north latitude, rising from an elevation of 7,270 feet above the level of the sea?

"Coming into camp in advance, passing through a grove of pine, on the margin of a little creek, I was met face to face on the path, by two magnifi-

cent buck elk, one of which I wounded, but lost in the woods. Mr. Smith started up a small bear, which also got away. The ground was everywhere tracked by the passage of herds of elk and mountain sheep; and bear sign was everywhere visible."

The tenth day found the party at an elevation of 7,697 feet, with the thermometer at 46° in the morning. Describing the high hills, (one of which, Langford's Peak, rises abruptly to the height of 10,327 feet,) by which they were surrounded, and through which the waters of the Yellowstone poured in one of the grandest cataracts of the world, Lieut. Doane says:

"On the caps of these dizzy heights, mountain sheep and elk rest during the night. I followed down the stream on horseback, to where it breaks through the range, threading my way through the forest on game trails with little difficulty. Selecting the channel of a small creek and leaving the horses, I followed it down on foot, wading in the bed of the stream, which fell off at an angle of about 30° between walls of gypsum. Private McConnell accompanied me. On entering the ravine we came at once to hot springs of sulphur, sulphate of copper, alum, steam jets, &c., in endless variety, some of them of very peculiar form. One of them in particular of sulphur had built up a tall spire from the slope of the wall, standing out like an enormous horn, with hot water trickling down its sides. The creek ran on a bed of solid rock, in many places smooth and slippery, in others obstructed by masses of debris formed from the overhanging cliffs of the sulphuretted limestone above. After descending for three miles in the channel we came to a sort of bench or terrace, the same one seen previously in following down the creek from our first camp in the basin. Here we found a large flock of mountain sheep, very tame, and greatly astonished, no doubt, at our sudden appearance. McConnell killed one and wounded another, whereupon the rest disappeared, clambering up the steep walls with a celerity truly astonishing."

On the twelfth day, at an elevation of 7,487 feet, they discovered a recent volcano, throwing steam and mud to the height of 300 feet. I refer to this, not to dwell upon this wonder (for it was but one among a myriad), but as evidence of the condition of vegetation and the capacity of the country to sustain flocks at that elevation. Lieut. Doane says:

"The distances to which this mud has been thrown, are truly astonishing. Directly above the crater rises a steep bank, a hundred feet in height, on the apex of which the tallest tree now is 110 feet high. The topmost branches of this tree were loaded with mud 200 feet above and to

feet laterally away from the crater. The ground and fallen trees near by, were splashed at a horizontal distance of 200 feet. The trees below were either broken down or their branches festooned with dry mud, which appeared in the tops of trees growing on the side hill from the same level with the crater, 50 feet in height, and at a distance of 180 feet from the volcano."

Certainly vegetation is not stunted by climate when in this elevated and volcanic region upon the apex of the hills, trees attain the height of 110 feet!

But Lieut. Doane's report is replete with evidence that the valleys are capable of sheltering sheep and cattle from the severity of climate that prevails upon the greater elevations during the winter.

But the route of the Northern Pacific Railroad is not obstructed by mountains like these; the highest point it attains being the Deer Lodge Pass through the Rocky Mountains, which is 4950 feet, being 3285 feet below the grade of the Union Pacific Road at Sherman, where, two years ago, I gathered a bouquet composed of the wild flowers common to Eastern Pennsylvania.

Settlements Along the Line.

It must be admitted that a portion of the land in Dakota, Montana and Idaho, through which this road will run, is unsuited to cultivation, but the proportion is much less than will be found on the line of any more southern road. The alkali plains alone which the Union and Central road traverses are broader than the breadth of all the bad lands along the line of the Northern route. Governor Stevens, who superintended the original government survey of this line, and frequently crossed the country, said, that "not more than one-fifth of the land from Red River to Puget Sound is unsuited to cultivation, and this fifth is largely made up of mountains covered with bunch grass and valuable timber, and filled with precious metals." But, ladies and gentlemen, were it true that but one-fifth instead of four-fifths of the land granted to the Northern Pacific Company between the western boundary of Minnesota and

the eastern boundary of Washington and Oregon, is presently available for the purposes of settlement, the grant would, in my judgment, be adequate for the construction of the road. Indeed, I believe that the lands granted in Minnesota, Oregon and Washington Territory, would build and equip the road.

*Commercial Advantages.**

No part of the capital employed in constructing this road will be long un-

* The Chicago *Journal*, in an intelligent review of the Pacific Railroads, says:

The census returns of 1860 gave 460,112 as the sum total of the population of Nebraska, Wyoming, Utah, Nevada and California—the district now traversed by the Union and Central Pacific Railroads. Work was commenced on the road, at both ends, in the winter of 1863. Between the two dates mentioned, owing to the war, it is evident that the far West could not have received much of an addition to its population. Looking back now, it is easy to see why so many of its friends, even, prophesied that financially the road would be a failure. They regarded the enterprise as one of political necessity, but could see no money in it. Its route, for the most part, lay through a wilderness incapable of agricultural settlement. Of the whole number of inhabitants above given all but 90,118 were in the State of California.

* * * * *

The earnings of the Central and Union Pacific Railroad were Fourteen Millions in 1870—the net receipts over operating expenses being in excess of Six Millions. In other words, in the first year of its through business it earned enough over and above running expenses to pay six per cent. on a fair estimate of its cost. In six years the Central Pacific (forming one-half of the through line) has earned Ten Millions net, being nearly Six Millions more than the interest on its Bonds and all the cost of operating. Sixty-five per cent. of this came from local traffic, and one year only of through business is included in it. The authorities of the Central Pacific estimate the earnings of their road for 1871 at Ten Millions, and President Thomas A. Scott, of the Union Pacific, places the earnings of that road, this year, at Nine Millions, making \$19,000,000 for the through line from San Francisco to Omaha. Of this at least \$9,000,000 will be net above running expenses, or 9 per cent. on a reasonable estimate of the entire cost of the road. The first mortgage bonds of the Central Pacific, bearing six per cent. interest, and secured only on the road, are now selling at 103. So oppositely to all expectation has the operation of the road turned out!

Since the commencement of the Union and Central Pacific, San Francisco has grown from being a city of sixty thousand inhabitants to a city of a hundred and fifty thousand. But, includ-

productive, as a remunerative business awaits the completion of each section. From the Missouri at Omaha to the Sacramento no navigable stream crosses or approaches the Union and Central road, while the route of this road is traversed,

ing that, a total population of the belt of States and Territories through which the road runs is only 788,270. And this number of people, with aid from a portion of Colorado (population 39,681) furnish business to the Union and Central Pacific at the rate of Fourteen to Nineteen Million dollars per year. This brings up the rather curious question, How many inhabitants are necessary in a given district to make a railway pay?

And now comes the Northern Pacific, certainly with greater probabilities of success than were before the Union and Central Pacific. While it equals the other in mineral wealth, the country through which it runs is vastly more inviting to the farmer. Indeed, testimony shows it to be of special agricultural value. Leaving out California on the Union-Central Pacific, and also excluding Minnesota on the Northern Pacific, and the latter road has 104,752 more people to contribute to its local business than awaited the opening of the Union and Central Pacific, and only 23,592 less than give support to the latter road now.

Including those two States, which would not be unfair, inasmuch as the Northern Pacific will have in Minnesota, with its main and branch lines, over eight hundred miles of road, draining two-thirds of the entire State—including these two States, the tributary population of the Northern road in all is 639,433, or 179,321 more than were at first reached by the Union-Central Pacific, and only 148,837 less than give aid to it now.

But the figures given are suggestive. What, principally within the last five years, has added 100,000 to the population of San Francisco? Surely nothing so much as the summons of iron knocking at the Golden Gate. If a road can add 100,000 people in five years to an existing city, cannot another one in the same time build up a city of 100,000, especially if, by reason of its shorter oceanic distance, it is demonstrated that it will necessarily control foreign shipments?

Few doubt that if the land lying along the Union Pacific had been as available for agriculture as the lands of the Northern Pacific, the population along the route would have trebled as well as that of its terminal city. Here, then, the case will probably stand:—The Northern Pacific, on its completion, will find a flourishing city awaiting it on Puget Sound, inferior, of course, in size, to San Francisco, but still a thriving, well-grown city, as helpful to it as the other to its Southern compeer. It will, during its progress, on account of its fertile lands, more than quadruple the population west of Minnesota, and so bids more than fair to equal the first through business of the Union and Central Pacific, while for the succeeding years its returns will be vastly greater.

at intervals of about two hundred miles, along its whole extent by navigable streams upon which there are considerable settlements. One eastern terminus of the road is the western-most point of our magnificent system of Lake navigation—the other is the head of navigation on the Mississippi river at St. Paul, a city whose population numbers about 25,000. Duluth, its lake terminus, is rising into commercial importance more rapidly than did Chicago, and with the promise of continuous growth. It is the port through which the people of Minnesota and the entire new Northwest will exchange commodities not only with all the lake ports of the U. S. and British America, but with Europe, and the commercial cities of the Atlantic seaboard. It will also be the chief outlet for the increasing tens of millions of bushels of wheat and feet of lumber, produced by the farmers and lumbermen of Minnesota. Though Duluth is not yet four years old, her foreign commerce is large enough to command the attention of the Treasury Department, and require the appointment of a deputy collector and several minor officers of customs.

The Northern River System.

The settlements on the Red river of the North, the western boundary of Minnesota, are numerous, and the trade of the extended and fertile valleys it drains will await the completion of the road to that river, which will be accomplished by the 1st of September. Beyond Minnesota, the line crosses or runs upon the banks of the Dakota, Missouri and Yellowstone, which are east of the Rocky Mountains, and navigable for hundreds or thousands of miles; and beyond the Rocky Mountains, the Snake, the Cowlitz and the Columbia rivers, will prove immediate and valuable tributaries to its business. Its western termini are at Portland on the Willamette, twelve miles above its confluence with the Columbia, which is already an important commercial centre, and a point yet to

be determined on the waters of Puget Sound, which are the predestined field of a commerce that, at an early day, will exceed that of San Francisco, and, in the not very distant future, equal the present commerce of New York. I cannot give the figures to show the extent of the trade of the Columbia river and its confluents, but am able to assure you from actual observation that it has been large and profitable enough to give the original stockholders of the *Oregon Steam Navigation Co.* prominent places in the roll of heavy capitalists on the Pacific Coast.

The Future Pacific Metropolis.

That the commercial metropolis of the Pacific coast would be south of Puget Sound I have never believed. Observation confirmed the conviction with which Mr. Whitney had impressed me. And early in August, 1869, just after my return from the Pacific coast, at the request of Col. John W. Forney, I held a protracted conversation with Mr. Joseph I. Gilbert, an experienced phonographic reporter, who, on the 27th of that month, presented to the readers of the *Press* the substance of the interview. Recurring to the *Press* of that date, I find that, speaking on this point, I said:

"Allow me to state one conclusion from personal observation. It is that San Francisco will, in the course of time, cease to be the great city of the Pacific coast. Her location constitutes her for the present the *entrepot* for all the commerce of the coast, embracing the trade from the South American coast, from the Sandwich Islands, from China, Japan, British Columbia, and our territory north of that city. The Bay of San Francisco, too, is quite capable of accommodating the commerce of the world. It is, I think, unequalled as a bay, in extent, beauty and safety. The city has made most magnificent strides. She has her dry-dock, her ample wharves, her steam-tugs, her coast defences, and has made very considerable progress in manufactures. But notwithstanding all these advantages, my firm impression is that the great city of the Pacific coast will have its location on or near the waters of Puget Sound.

* * * * *

"Here are to be found in abundance timber, coal, iron, fish, wheat, all domestic grasses, the potato, apple, pear, plum, and during more than half the year, all the fruits known to our own tables. Here, in my judgment, will be located the

great city of the Pacific coast, as, owing to the peculiar conformation of the Sound, communication may easily be had between distant parts of this territory by water.

"Another consideration is that a city located here would be practically nearer to China than is San Francisco; because vessels leaving San Francisco for China, notwithstanding the point for which they are destined is south of their point of departure, are compelled on account of the prevailing winds, to make what sailors call a "northing," quite up to the Straits of Fuca; in consequence of which a vessel starting from the latter point for the same destination would have an advantage of three or four days over her San Francisco competitor."

Some Official Testimony.

But, ladies and gentlemen, let me hasten on and show you by official testimony the advantages presented by this route to the Pacific over any other north of the 32d parallel, on which, as I have said, the almost tropical climate would prove an obstacle to general travel and commerce. In pursuance of the act of Congress of March 3, 1853, the Topographical Engineers designated by the Secretary of War, surveyed seven routes extending from the line of the Northern Pacific southward to the 32d parallel. Their reports were referred by the Secretary of War, for examination to Captain A. A. Humphreys and Lieut. G. K. Warren, both of whom are well known to the country for the distinguished services they rendered as commanding generals during the late war, and the former of whom is now at the head of the Engineer Department of the United States Army. On the 5th of February, 1855, these officers submitted the results of their analysis and comparisons in an elaborate report, in which, speaking of the route near the 47th and 49th parallel they say:

"The advantages of this route are—its low profile, which is important in relation to climate; its easy grades, and small amount of ascents and descents, both important if the road should be developed to its full working power; the great extension west of the prairie lands; in the supplies of timber over the western half of the route; the facilities which the Columbia river and its tributaries, and the Missouri, will afford to the construction of the road; in the short distance from the Mississippi to a seaport of the Pacific; in the western terminus of the road on Puget Sound being nearer to the ports of Asia than the termini of the other routes; in the

proximity of the eastern terminus to Lake Superior, from which a continuous navigation for sea-going vessels extends to the Atlantic Ocean; and in the existence of coal on Puget Sound."

The explorations had been but preliminary and had not disclosed the important fact that an abundant supply of coal is distributed at easy points along the whole route.*

On page 107 of the first volume of the report, to which I refer for a moment, is found a tabular statement, showing the relative distance by each of the seven routes surveyed; the sum of ascents and descents; the length of level route of equal working expense; the comparative cost of different routes; the number of miles of route through arable land; the number of miles of route through lands generally uncultivated, arable soil being found in small areas; number of square miles of sums of areas of largest bodies of arable land in uncultivable region; number of miles at an elevation less than 1000 feet; number at an elevation greater than 1000 and less than 2000; greater than 2000 and less than 3000; greater than 3000 and less than 4000; greater than 4000 and less than 5000; greater than 5000 and less than 6000, at which point the Northern route disappears from the table, while two of the routes have each twenty miles at grades above 10,000 feet, and both of which it would be necessary to tunnel at an elevation of 9540 feet, which is 4590 feet above the highest summit the Northern road will cross.

Grades—A Natural Pathway.

In all these respects the Northern route is shown to compare favorably with all of its competitors. But its most remarkable advantage appears under the head of the sum of ascents and descents. High rates under this head indicate increased percentages of danger and current ex-

pense. The lower the rate of ascent and descent the safer and more economical is travel. And while the Northern route is charged under this head with but 19,100 feet, the route comparing most favorably with it in this respect is that on the 41st and 42d parallels, in which the sum is 29,120, an increase of more than fifty per cent.; and the extreme contrast is that of the route on the 38th and 39th parallels, in which the sum reaches 56,514.

The study of these voluminous reports will satisfy any reasonable man that from Duluth to a point on Puget Sound is nature's own route for a Pacific railroad. So startling indeed were the advantages presented by this route, that the then Secretary of War, Jefferson Davis, struck from the report of Governor Stevens, since so distinguished as a soldier and engineer, the estimate he presented of the cost, which was \$117,121,000 and inserted in lieu thereof \$130,781,000. His keen foresight showed him that the development of the then almost unknown Northwest, by the construction of a road upon easy gradients through a region of such wonderful resources, would, in a few years, place his beloved South and slavery at the mercy of a free people, overwhelmingly outnumbering those of the plantation States. How reckless and unjust this action was, is proven by the fact that all the more recent estimates fix the cost at but little more than sixty-six per cent. of that of Governor Stevens, or \$77,000,000 for the road and original equipment.

Effect on American Commerce.

The effect the completion of this road, with its immense advantages of position and grades, is to have upon our commerce cannot be predicted. I reiterate the assertion that the trade of the Pacific Ocean must find its chief *entrepot* on Puget Sound; and as evidence of my appreciation of the future extent and value of this commerce let me again refer to the remarks I made in Congress on the 26th of April, 1866. Replying to a distinguished representative

* San Francisco and her ocean steamers are now supplied with coal mined on Puget Sound, near the western terminus of the Northern Pacific Railroad. Twenty-five thousand tons were shipped for this purpose in 1870.

Chicago, Ill., who had reminded
 bers who were disposed to vote for
 o the Northern Pacific Road, that a
 gressional election was at hand, I said:

appeal from the constituents of the gentleman
 Chicago [Mr. Wentworth], on the eve of an
 n, to posterity, and ask gentlemen to view
 oposed enterprise in the light in which future
 itions will behold it. They will look beyond
 st and undeveloped empire I have indicated;
 yond it lies the broad Pacific, capable of
 g a commerce a thousand times heavier than
 ver chafed the waters of the Atlantic, but
 ich our flag is seen floating only from the
 of coasting craft or whalers wending their
 way to the Northern seas in quest of hard-
 l wealth. So slight is our power upon this
 that the recently pardoned rebel Semmes,
 a single vessel, destroyed nearly a hundred
 r peaceable whalers, giving their cargoes,
 ed by years of dangerous toil, to the flames
 : waves. It bounds our country for more
 a thousand miles, and our maritime power,
 could not now protect a mile of it, should
 n and felt upon it, and our flag and white
 r the curling smoke of our steamers should
 w its every wave.

ie commerce of the Pacific ocean belongs to
 id we should confirm our title by the right of
 ancy; for when we cast our eyes beyond its
 surface, we behold what is to be our next
 est. The Old World is to be awakened by
 can ideas. Its unnumbered people are to be
 ned, instructed, and redeemed by American
 rise. Some statisticians tell us that there are
 10,000 people in the ancient theocratic coun-
 ty of the East, which is the West to which the
 our commercial empire will next take its
 Others put the population at 1,000,000,000;
 hers at 1,300,000,000. There, where civili-
 dawned and the drowsy past yet lingers, the
 pulses of a new cycle begin to be felt. Japan
 ding to the impulses of our age. The Chi-
 all is crumbling away. It was but yesterday
 had a letter informing me that our country-
 Dr. Martin, interpreter of the American Leg-
 at Pekin, under the employment of the Chi-
 government, had rendered into that language
 heaton's Law of Nations. Thus, that vast and
 solated Power is preparing to enter into com-
 l connections with the world. The ancient
 ation of Asia is giving way, the doctrine of
 castes is about to yield to the sublimer creed
 n's freedom and equality. Muscular labor
 on be done there by the potent agents we
 mploy—coal and iron—and the genius of the
 dead, embodied in mechanism, will soon
 : their toiling millions as it now does ours.
 whole life is to be quickened by modern en-
 e, and they will swell the numbers of the
 on our Pacific slope."

ien it is asserted that these roads
 give us the control of the commerce
 aina, purblind philosophers point to
 mall portion of that trade carried

by the Central and Union road as proof
 that that commerce will never cross our
 country. It is not two years since that
 road was completed. Commerce follows
 cheap and rapid lines of transit, and
 railroad fares are regulated by the amount
 of business done. Thus in 1850, by the
 average rate of fares on American roads,
 it cost \$20 to transport a ton of wheat
 100 miles; in 1870, a ton of wheat was
 transported the same distance for \$1.25.
 [Applause.] With increase of business
 the Central and Union Pacific Road will
 be able, while increasing its profits, to
 reduce its rates for freight and travel.
 It is doing it already. Its present rates
 for passengers and freight compare, as
 I have said, most favorably with those
 of 1869; and when twenty or thirty other
 branches, like those to Denver and Salt
 Lake City, shall throw their business
 upon the trunk line, and when other
 Evanstons and Cheyennes shall have
 sprung up, when Omaha shall be a city
 like San Francisco, and San Francisco
 a city like Philadelphia, all which may
 occur within the next quarter of a cen-
 tury, who shall say how small will be the
 charge for carrying a chest of tea or a
 case of silk? It will be very small, and
 when railroads shall be able to carry this
 freight as cheaply and more quickly than
 it can be moved by steamers, the trade
 of China and Japan will cross our conti-
 nent, and my prophecies of 1846 and
 1850 will be more than fulfilled, as the
 Pennsylvania road will carry the freight
 of two Pacific roads—one from San Fran-
 cisco and the other from the Columbia
 and Puget Sound. [Applause.]

Pacific Coast Harbors.—Puget Sound.

Among the strange contrasts presented
 by our two coasts, few are more impres-
 sive than the coast line itself. Harbors
 are numerous along the Atlantic coast.
 No seaboard State is without one or more
 good harbors. Count them, from Gal-
 veston northward and eastward to Prot-
 land, Maine, and the number will surprise

you. The agricultural and mineral productions of almost every State could be floated to the sea, while our long Pacific coast, south of Alaska, presents but four harbors or fair points for commercial centres, the Bays of San Diego and San Francisco, the Columbia River and Puget Sound, the entrance to which is the Straits of Fuca. The Alleghanies are inland mountains; but the "coast range," as their name indicates, lie along the coast of the Pacific, leaving harbors only where the great waters have forced their way through the rocks.

As I have said, the commerce of China and Japan must near our coast north of the Bay of San Francisco, north even of the mouth of the Columbia, and at a point near to the Straits of Fuca. While, therefore, the commerce of the Pacific must to some extent be shared by San Diego, San Francisco, Portland, and Astoria, a city yet to arise on Puget Sound will be its great centre.

Productions, Resources and Seasons.

Would that I could convey to your minds a moderate conception of the wealth and climate of this far North-western country and of the body of water called the Straits of Fuca and Puget Sound—so calm, so deep, so guarded by forests such as no man who has not visited them has ever seen. The Straits of Fuca run in an almost direct course more than ninety miles, at an average width of more than ten miles. The shore-line of Puget Sound is nearly 1900 miles, but, such is its conformation, that the points at greatest distance from each other are not four hundred miles apart. The Sound is a series of canals, bays, inlets and harbors. Gov. Stevens, who lived on its shores for a number of years, likened it to a tree, with a very recognizable body called Admiralty Inlet, and innumerable side-branches, the trunk and branches filling a region seventy nautical miles in length from north to south, and thirty in breadth

from east to west. In speaking of it again, he said :

"On the whole west coast, from San Diego to the north, nothing like this is met. All the water channels of which Admiralty Inlet is composed, are comparatively narrow and long. They have more or less bold shores and are throughout very deep and abrupt, so much so that in many places a ship's side will strike the shore before the keel will touch the ground. Even in the interior and hidden parts, depths of 50 and 100 fathoms occur as broad as De Fuca Strait itself. Vancouver found 60 fathoms near the Vashon Island within a cable length of the shore, and in Possession Sound he found no soundings with a line of 110 fathoms. Our modern, more extensive soundings prove that this depth diminishes toward the extremities of the inlets and basins. Nothing can exceed the beauty and safety of these waters for navigation. Not a shoal exists within them; not a hidden rock; no sudden overfalls of the water or the air; no such strong flaws of the wind as in other narrow waters, for instance as in those of Magellan's Straits. And there are in this region so many excellent and most secure ports that the commercial marine of the Pacific ocean may be here easily accommodated."

There is but little waste land in Oregon and Washington Territory. Oregon embraces 60,975,360 acres, and its population in 1870 was but 90,933. Washington Territory contains 112,730,240 acres, and the census takers found but 23,955 civilized people dwelling upon them. This State and Territory are among the most fertile and productive sections of our country. The wheat of Oregon and Washington, as you may ascertain by consulting the commercial papers of San Francisco, commands, in the markets of that city, ten cents per bushel more than the wheat of California; and oats from the Territory are worth fifteen cents per cental more than the best California oats. As we get the wheat of the entire Pacific slope through California, we know it only as California wheat; but in the home market the difference I have indicated is constantly maintained by reason of the superiority of the more northern grain.

The forests that shelter these waters are composed of trees running up from 250 to 350 feet, with a diameter of from 8 to 12 feet, and throwing out their first arms at from 60 to 100 feet above the ground. In these glorious solitudes, upon the waters of Puget Sound there are in operation

saw mills that will this year ship largely over 200,000,000 feet of superior lumber to San Francisco, Callao, Valparaiso, the Sandwich Islands, Australia and China. These forests, an inexhaustible store of wealth in themselves, are underlaid by rich deposits of coal, iron, gold and silver. The beds of iron and coal are already utilized to some extent; and the existence of the precious metals, is established by the fact that the washings of the water-courses furnish traces of gold and other metals. Of the fish with which these waters teem, I dare not tax your credulity by speaking.

Though bounded by the 49th degree of latitude, the climate is genial throughout the year. So mild are the winters—indeed, I may say, so free is the country from winter—that, notwithstanding the moisture of the climate, west of the Coast range, no provision is made for housing cattle at any season of the year. In the month of July, 1869, within the limits of Astor's old fort, near the mouth of the Columbia river, I picked from the orchard of a farmer who had gone thither from Bedford County, Pa., a variety of delicious apples, pears and plums; and from vines near the trunks of the trees, raspberries, strawberries and blackberries—a combination of fruits that could not be found in the month of July upon the best cultivated and most fortunately situated farm in Pennsylvania. And a week before, our party had found Indian women and children vending these fruits and the apricot in the streets of Victoria, the capital of British Columbia.

At Olympia, the capital of Washington Territory, situated at the head of Puget Sound, it was my pleasure to pass the greater part of a day with my young friend Elwood Evans, Esq., son of Chas. Evans, the press manufacturer of this city (whom I recognize among my auditors), and to gather luscious fruit from tree and vine in the gardens attached to his comfortable home and his law-office hard by upon the same street.

The Work of Development.

Do you ask, as others have done, why with such stores of wealth, waiting to respond with such boundless generosity to the demands of man, the population does not equal one man, woman or child, to each square mile? If you do, the answer is ready. It is because the people and Government of the United States did not promptly respond to the suggestion of Asa Whitney, and either by the means proposed by him, or those they should select connect our Pacific territory with the great lakes by a railway. Had that been done, and the way been then opened to emigrants, Washington Territory would long since have been divided into two or more States, California and Oregon would be great commercial rivals, and the population of our Pacific States would equal or exceed that of busy and blessed New England.

To reach the golden lands of the Pacific coast has been a matter of too much time and expense for the poor man, and too full of trials for families. The fact that in spite of these almost insuperable difficulties, so many intelligent people have found their way thither is a testimonial to the wonderful attractions of the country, and the immense rewards it offers to industry and enterprise.

Build this road, open these multiform and exhaustless resources to the poor but enterprising people of the Eastern States and Europe, and population will flow into them so rapidly that they who shall a few years hence hear the story of the doubts of to-day about the Northern Pacific Railroad will experience wonder similar to that which you feel at the want of forecast that characterized the people of Pennsylvania twenty-five years ago, when they shrank from embarking so small a percentage of their capital in building the Pennsylvania Central road; and in a few years the trunk line of this great thoroughfare will carry the trade of innumerable lateral

branches, penetrating not only our valleys but those of the British Colonies to the North, whose people will thus be made tributary to us forever, or induced to unite their destinies with ours, under a common constitution and flag. This is not declamation or prophecy. It is the announcement of conclusions that flow irresistibly from an ample store of unquestioned facts.

Do you ask whence the population would have come to effect the changes I have indicated? By the construction of the road, the character of the climate and resources of the country would have been disclosed long years ago, and the sheep-growers of the States from Vermont to Iowa would have transferred their flocks to the Asiatic and Australian fields that slope the Rocky Mountains. The hardy lumbermen from the forests of New England and northern Pennsylvania would have found their way to these richer forests in more genial climes. Nor would we then have suffered the decline in our ship-building so much and so justly bemoaned; for difficult of access as the country is, and slender as is its population and commerce, we found along these woody shores ship-yards, having on the stocks first-class ships, the outer planks of which were without a joint, having been cut sheer from one of the monarchs of the forest on the shores of the Sound. The increased coast trade of the Pacific commerce between our Atlantic and Pacific ports would have kept alive this decaying branch of business, which with the completion of the Northern Pacific Railroad, must revive with grander proportions than it ever assumed in the past.

Where will the people come from to make this wealth available, to build cities at the points along this road at which railroad and river traffic shall intersect, to raise provisions for the mining camps, and to build up commerce on Puget Sound and the Columbia river? What American, whose memory is good for a quarter of a century, asks this question? Where have the people come from who, since we

discussed the propriety of building the Pennsylvania Railroad, and Asa Whitney submitted the project of a Pacific road, have settled Iowa and Wisconsin, whose joint population, though then but 200,000, now numbers two millions and a quarter, each having over a million? Where did the people come from who, within a brief quarter of a century have doubled the population of the Northern States of the Union? Where have the people come from who have meanwhile populated so many of the gold and silver-producing sections of our vast territories, and built up the States of Texas, California, Minnesota and Oregon? Let Edward Young, Esq., Chief of the Bureau of Statistics, answer these questions. I hold in my hand a recent report of his—a document that should be circulated by millions through the Eastern States and Europe. It is entitled, "Special Report on Immigration, accompanying Information for Immigrants relative to the Prices and Rentals of Lands, the Staple Products, Facilities of Access to Market, Cost of Farm Stock, Kind of Labor in Demand in the Western and Southern States, etc." This report shows that during the 8 years terminating with the 31st of December, 1846, we received 736,887 immigrants, of whom 416,950 came from the British Isles. But, Mr. Doubter, you interrupt me to ask whether this tide of immigration will continue? whether it has not reached its climax? The Chief of the Bureau of Statistics shall answer you again; for his report shows that during the like period of 8 years, terminating the 31st of last December, we received 2,307,554 immigrants, of whom there came from the British Isles 1,015,517, or more than 33 per cent., more than the entire immigration during the former eight years.

Yes, the tide of immigration will continue, and for many years it will increase. Each year will see its volume rolling in, until regenerated Europe shall give the laborer political power and social consideration. [Applause.] Our cheap land

and democratic institutions will bring her bone and sinew and enterprise to develop the resources and add to the wealth and power of our country. [Loud applause.] And nothing will do more to promote the movement than the advertisement to all the world of the vast resources of the region through which this road is to run and the wonderful field for labor, enterprise and adventure at its Pacific termini.*

Philadelphia Interests.

But what will be the effect of the road upon Philadelphia? What relations has all this to our city and State? These questions which you propounded to me in your invitation, have, I think, been answered by what I have said. What State or city shares more largely than ours in the general prosperity or depression of the country? Who will be more benefited by the cheapening of freight on raw materials and manufactured articles than we? What American city produces so many of the comforts and luxuries which the people along the line of this road will consume as Philadelphia? Their demands will stimulate our industry, and their abounding means will enable them to reward it abundantly. The construction of one railroad bridge—that over

the Mississippi river at St. Louis—gave to one Philadelphia firm, the Wm. Butcher Steel Works, a contract for \$500,000 worth of steel. And even now, hundreds of Philadelphia mechanics are busy building locomotives and passenger and freight cars for the Northern Pacific Railroad.

I need not elaborate this point. We are a community of working people. The mass of the citizens of Philadelphia absolutely live by manual labor. The prosperity of the capitalists of this city is dependent upon the steady employment and liberal wages of her working people. [Applause.] When labor is idle, capital is idle, or employed at little profit; when the laborer earns no wages, the landlord is not always sure of his rent. [Laughter and applause.] The effect that the construction of this road will have upon the employment and wages of laboring people was discussed by me in the Congressional remarks to which I have already referred. Let me read a paragraph or two from what I then said:

"But the inviting field of the ocean, and the vast field of enterprise and reward open to us in Asia are not the only considerations that induce me to support this bill. The laboring people of every eastern city have an intense interest in this question. The safety of our country depends upon the intelligence, the virtue, the stability of our laboring people. He legislates not wisely for a democratic republic who does not make it the aim of all his acts to improve the material condition of the great laboring masses of the country. If we would perpetuate our institutions, we must see that the wages of labor are so maintained that the children of the laboring man shall grow up amid the endearments of home, and with the expectation that their children shall find more elegance and refinement in their homes than their parents were familiar with in childhood.

"The construction of a road through our northern gold region will open a field that will be a constant refuge for the surplus labor of our eastern States. There will be a refuge for those masses of ingenious workmen who are jostled each year by lack of adjustment of their numbers to the demand for their branch of labor, or are deprived of the advantage of the skill they acquired in youth by the invention of labor-saving machinery; and instead of finding themselves, as age gathers on their brow, without the means of livelihood, rich fields of enterprise, easily reached, will cheer their declining years.

"But again, the depression of our laboring people springs not alone or chiefly from local causes. Beyond the Atlantic Ocean there are 250,000,000

* A late number of the St. Paul *Pioneer*, speaking of the tide of population already pouring to the line of the Northern Pacific Railroad, says:—

"The roads leading to the Red River Valley are literally covered with emigrant wagons, with their usual accompaniment of families, furniture, and stock of all kinds. The wagon roads from Sauk Centre to St. Peter show daily accessions to the vast caravan wending its way to the fertile regions of Northern Minnesota. The extent of the great incoming tide of humanity can be best estimated on the main road between Alexandria and Pomme de Terre. Two hundred wagons per day pass over this portion of the route northwest, and the camp fires are seldom allowed to go out—a fresh train of emigrants arrives almost as soon as its predecessor has resumed its march. A noticeable feature of this year's emigration is its quality—the wagons come loaded with household goods and farming implements, and are followed by herds of cattle and other stock which in quality would do credit to any country."

people, in every community of which laboring men are held as raw material; and under the grasping influence of capital, and the oppression of despotic government are held in such bondage, that they are made to subsist, even when they toil most assiduously, upon a modicum of the elements of life, upon a minimum of the amount that will keep the soul in a tolerably sound body. Escaping from this subjection, they are borne to our shores by tens and hundreds of thousands each year. They are strangers in a strange land, many of them unacquainted with our language and habits, and are unconsciously and unwillingly the means of depressing wages. But if we give to the company the means to inaugurate work on this road, we will not only relieve the laboring masses of our crowded eastern cities, but furnish employment for more than the annual influx of those whom we gladly welcome, because they strengthen and enrich us by their toil. Could we drain Europe of its surplus laborers we would raise her wages as she now too often depresses ours.

"What will be the true policy of the builders of this road? Will it not be to employ as laborers, the heads of families, and to pay them with land and money, and settle the families along the line of the road, so that the laborer of one year will, in the next, farm his land and supply fresh laborers with bread? Thus will he who enters into an engagement with the company a pauper, or little better, find himself at the end of a year or two an independent farmer upon the world's great commercial highway. The managers of the road must pursue this policy, and will thus create business for and guard their road; thus, too, they will quicken the mineral and agricultural resources of the country, and give to the tax collector, whether at a port of entry, or in the service of the internal revenue department, more money each year than this bill is likely to cause to be taken from the treasury."

"I ask gentlemen in considering this question to rise to its dignity and grandeur. I am, sir, a devotee to freedom, but would make every country in the world tributary to my own. I delight in every manifestation of my country's power, and glow with pride as I contemplate its gigantic proportions, and see how rapidly its people subdue the wilderness, and would, as I have said, make every nation tributary to its power; but I would do this, not by oppressing any people, not by war with any government, but by improving the condition of the masses of my countrymen and those who may become such by emigration, and showing the rulers and people of the world how speedily free institutions exalt the poor and oppressed of all nations into free, self-sustaining and self-governing citizens. It is in our power to do this, and by no other means can we do it so well or quickly as by passing this supplement and vivifying the charter granted to the Northern Pacific Railroad Company."

But, ladies and gentlemen, I have detained you too long, and must close. Not, however, until I shall have reminded you that the grades and snows of the *Alleghanies* have not interfered with the prosperity of the Pennsylvania Railroad Company. That road has not been a

failure. It has done something for the improvement of Philadelphia. It is the most profitable railroad, and most powerful corporation in the United States. [Applause.] It has stretched its controlling influence clear across the Continent. Its vice-president, our esteemed townsman, Thomas A. Scott, Esq., is the master-spirit of the Union Pacific Company, and of more than one line connecting it with Philadelphia. [Applause.] Roads owned or managed by the Pennsylvania Company await the business of the Northern Pacific road, both at St. Paul and Duluth. It has built a road to Erie, our beautiful city of the Lakes, where vessels charged with freight at Duluth will in the early spring and later autumn of each year, discharge cargo for New York and Boston, and throughout the season of Lake navigation, for Philadelphia and Baltimore; and it requires but little power of the imagination to behold Erie expanding into generous rivalry with Buffalo, Cleveland and Detroit.

Though the great characteristics of Philadelphia will always be those of a manufacturing city, her commerce is to revive. She will have not a line but numerous lines of steamships; and many of the men who now hear me will see the day when her existing wharf line will be wholly inadequate for her commerce. Indeed the completion of the Northern Pacific road, with the steadily increasing trade of the Central route will settle the now vexed question of a railroad along the entire river front, and require the construction of docks from Greenwich Point to Richmond. But familiar as you are with the resources of our city and State, and the advanced condition of our industries, I leave you to estimate the impulse that will be given to every interest and industry of our people by the early completion of the Northern Pacific Railroad. [Amid earnest and prolonged applause the speaker retired.]

Climate and Resources of Montana.

BY B. F. POTTS,

GOVERNOR OF MONTANA TERRITORY.

In the middle of the continent, between the Great Lakes and the Pacific Ocean—in the heart of that New Northwest, the extent, character and resources of which the people are at last beginning to appreciate—embracing within its boundaries four parallels of latitude and no less than twelve degrees of longitude, lies the great Territory of Montana. The superficial area of this territory is extensive enough to make three states as large as New York, the Empire State of the East; and, as I have stated elsewhere, I believe it to be the richest region in agricultural and mineral resources on the American continent. There are at least fifty thousand square miles of tillable land within its limits; and this land, under a cheap and simple process of irrigation, is of unsurpassed fertility, yielding in the greatest abundance all varieties of the cereals. I have seen samples of wheat which yielded eighty bushels to the acre, and the average yield, even with the very imperfect methods of cultivation which are in vogue here, is from forty to sixty-five bushels. This exceeds the yield of the famous wheat-fields of Minnesota, and is about four times as great as the average wheat crop of Ohio. Rye, oats and barley produce enormously, and the yield of vegetables is simply without a parallel in the history of horticulture in America. The common yield of potatoes, for instance, is 400 bushels per acre.

Lands for grazing purposes, too, are of vast extent and of the best quality. Grasses as nutritious as sheaf-oats cover the hills and valleys and extend far up

the mountain sides, affording pasturage for numberless herds of cattle and sheep during the entire year. The cattle alone now to be found in the Territory number at least sixty thousand head, and so abundant are these grasses, and so mild is our climate, that no grain or hay is fed to them at all—they take care of themselves and keep fat all winter. Our meat markets are supplied with beef taken from among the different herds at all seasons of the year, and it is found to be of the fattest and sweetest, making delicious food, superior generally in quality and flavor to the grain fed stock of the States. Certainly no country can surpass this for grazing purposes; and there is none where, in the future, when the Northern Pacific Railroad has reached us, such fortunes are to be made in the business of raising stock for the market.

Of the mineral wealth of Montana all the world has heard. Not less than twelve million dollars' worth of gold-dust was taken from the mines last season, and iron, copper, coal, and other minerals exist in exhaustless abundance.

I suppose, however, that the thing about our New Northwest which has most surprised the public is the genial character of its climate. Radically different as it may seem from the prevalent idea regarding it, it is nevertheless true that the climate of Montana, as a whole, is milder than that of New York, while the purity and dryness of the atmosphere make the variations of temperature far less noticeable. The old theory that the further north we go the more severe the climate

no fact comes

becomes is now generally exploded. It is understood, at last, that isothermal divisions, except in their larger aspects, are entirely independent of degrees of latitude; and the various explorers and topographers who have been sent out here by the Government have shown by instrumental tests that the temperature of Walla Walla, on the 46th degree of latitude, is the same as that of Washington City, on the 38th; that of Clark's Fork, in Montana, on the 48th, the same as that of St. Joseph, Missouri, on the 41st; and that of the Bitter Root Valley, Missoula County, Montana, on the 46th, the same as that of Philadelphia, on the 41st.

The winters in this section are generally open and pleasant, as may be inferred from the fact of the cattle grazing without shelter all winter. The valleys are hardly ever covered with snow, and it is rare that the roads are not dry and passable for ten months in the year. On the mountains, of course, as in mountainous regions usually, winter sometimes pinches hard, and snow falls to considerable depths; but even the mountains are not the least attractive features of the territory. The elevation of the mountains, valleys, and plains of Montana above the level of the sea is from 2,000 to 4,000 feet less than that of Wyoming and Utah. This fact alone goes far to explain the milder climate and vastly greater productivity of Montana.

How this great wealth, agricultural and mineral, is to be utilized and made to contribute its due share to the nation's commercial prosperity is a question not less important to the people at large than to the inhabitants of Montana itself; and in considering it I am brought to that great enterprise, the Northern Pacific Railroad, now building and destined to traverse from east to west our entire territory. This road will drain our richest valleys, and furnish *an outlet for the immense future surplus productions of the Territory.* All that has

heretofore been written about the superior land-grant of the Northern Pacific Railroad in Montana, scarcely gives an adequate conception of the extent and true value of the grant. The company will receive twenty-five thousand six hundred acres of our best agricultural grazing land for every mile of road is built—lands which not only possess all the advantages which I have mentioned, but are within easy reach of timber, and abound in fine building stone of almost every variety and haustible in quantity. I have no doubt that these lands will not only cancel the entire cost of building the railroad, but will leave a surplus to the company.

The Northern Pacific Railroad has of immense importance to Montana. It will enable our stock raisers to compete on favorable terms with those of Illinois and other states in the markets of the Eastern cities. A new impetus will be given to all our industries. Our territory will be developed, new ones will be opened, and those that produced tens of millions of dollars in gold last season will far exceed that sum annually. Our population will rapidly increase: the number of cities and towns we now have will be doubled in number and quadrupled in size; and the public land, now uncultivated, will be cultivated by actual settlement. Other prosperous states will spring up around us; and before we enter another decade this great Northwest will be lying broad and inviting before the settler, will be contributing its rich share toward the wealth, commerce, and general prosperity of the nation.

The enterprise which is opening the New Northwest is truly a great national work, and well deserves the encouragement, co-operation and support of all who, as Americans, feel an interest in the country's progress, or who as capitalists desire a liberal return on their investment.



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